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ABSTRACT

The Indian Health Committee met with key staff of the Indian Health Service (IHS) Area Office to review the environmental health services provided on the Navajo Reservation and make recommendations for improvement or expansion of current programs, if needed. Recommendations were made regarding environmental health and institutional personnel, veterinary involvement, water management, vector control, housing and mobile homes, uranium mill decontamination, solid waste disposal, silver smithing safety, personnel training, and the communications systems. Among the recommendations were that: due to the broad scope of the environmental health program on the Navajo Reservation, the personnel should be almost doubled in order to adequately maintain the program; additional personnel possessing institutional environmental control training are needed to service the new major medical facilities being developed and presently operating on the reservation; the Navajo Tribal Council be encouraged to increase their coyote and stray-dog control program in order to reduce the likelihood of a rabies outbreak. This report presents discussions of the recommendations, of IHS and Indian health facilities, and of the background of the Navajo Environmental Health Review; a summary of the "Indian Health Care Improvement Act" as passed by the House on July 30, 1976; program information on components of the Office of Environmental Health; a status report of inactive uranium mill sites; and the work plan for decontamination of the Shiprock uranium mill site. (NQ)

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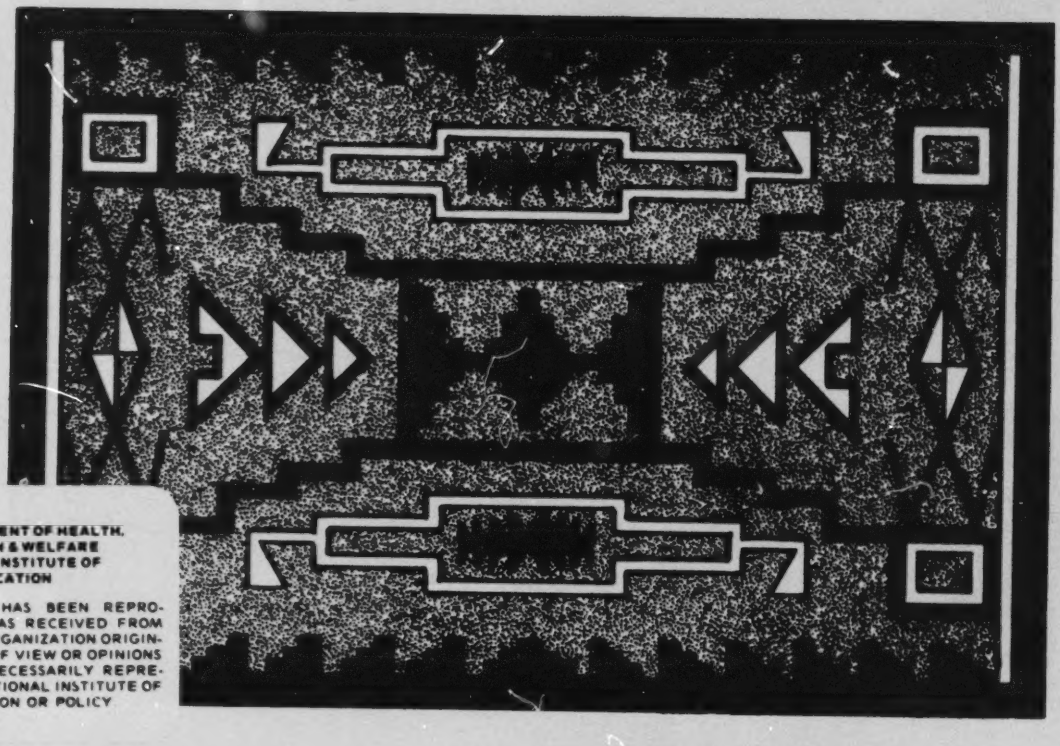
NAVAJO AREA INDIAN HEALTH SERVICE

ENVIRONMENTAL HEALTH PROGRAM REVIEW



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Conducted by:
Indian Health Committee
of the
National Environmental Health Association

RC010270

TABLE OF CONTENTS

	Page
List of Participants	1
Summary	3
Conference Report Recommendations and Comments	4
Acknowledgments	11
EXHIBITS	
Exhibit A. Agenda	12
Exhibit B. Statement by Director, IHS	14
Exhibit C. Navajo Background	21
Exhibit D. Legislation	27
Exhibit E. Program Information on Organizational Components of OEH	32
Exhibit F. Status Report of Inactive Uranium Mill Sites	44

NAVAJO ENVIRONMENTAL HEALTH REVIEW

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NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION

Committee on Indian Health

Navajo Environmental Health Review

SUMMARY

A meeting of the National Environmental Health Association, Indian Health Committee, was convened in Window Rock, Arizona, during the week of May 24, 1976. The Indian Health Service Area Office, which administers a comprehensive health care delivery system to the Navajo Indian Reservation, is located in Window Rock. The purpose of the meeting was to review Environmental Health services provided on the Navajo Reservation and to make recommendations for improvement or expansion of current programs if needed.

The committee met with Dr. Marlene A. Haffner, Area Director, and other key Area staff on Monday, May 24, 1976. Dr. John Todd, Director, Division of Program Operations, IHS, Rockville, Maryland, was also present and provided the committee with an orientation of existing Indian Health Service programs and a discussion of current and pending legislation which would have an impact on future programs. Examples of such legislation are the Indian Self-Determination and Education Assistance Act and the Indian Health Care Improvement Act.*

The Committee was then provided with an overview of the comprehensive integrated health care delivery system that is provided on the Navajo Reservation, with particular emphasis on environmental health and its role in the overall delivery of health services to the Indian people.

The Committee spent the remainder of the day receiving additional orientation to the Navajo Reservation from Tribal officials in Window Rock and Ft. Defiance, Arizona. Visits were made to various departments of the Navajo Tribal government.

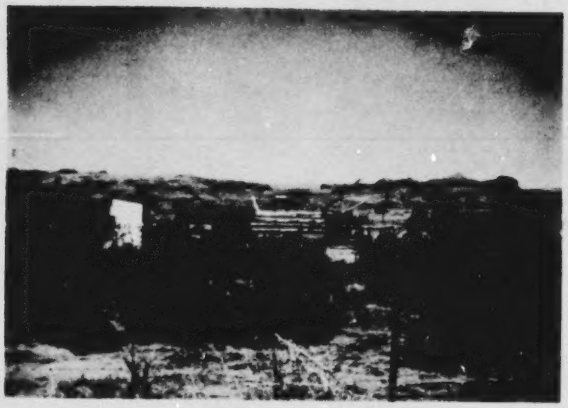
May 25, 26, and half of the 27th were devoted to visiting four of the eight Service Units on the Navajo Reservation to observe environmental health programs in action. The four Service Units visited were Gallup, Crownpoint, Shiprock, and Chinle. The committee reconvened on the afternoon of the 27th in Window Rock for a closeout session with the Area Director and other appropriate Area staff members.

The Committee met in Executive session on the evening of May 27 to formally develop a series of observations and recommendations for improving the Environmental Health Program on the Navajo Reservation. The review officially ended at the close of the executive session.

All Committee members felt that the review was extremely worthwhile and that NEHA should continue to offer this program review service in the future.

*See Exhibit D.

Turquoise fitting at Begays



Native housing at Crownpoint

Native hogan under construction near Many Farms

Leonard Freeland, Crownpoint biological aide uses sprayer.

Modern housing built with government aid.

Crownpoint Station staff Emma Jean Begay, Leonard Freeland, and Sammie Charlie

Crownpoint well site

Photos by John Fleming

Conference Report

NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION

Committee on Indian Health

The National Environmental Health Association's Committee on Indian Health met during the week of May 24, 1976, on the Navajo Indian Reservation. Committee members were: Irwin Snyder, Chief, Health Care Facilities, Baltimore County Health Department; Nicholas Pohlit, National Environmental Health Association Executive Director; Ray Watts, American Academy of Sanitarians representative and Chief, Division of Sanitation, Ohio State Department of Health; John Fleming, Head, Environmental Health Programs, Ferris State College, Big Rapids, Michigan; and Russell Smith, student member, formerly with Maricopa County Health Department, Phoenix, Arizona.

The Navajo Indian Reservation encompasses 25,000 square miles within the four states of New Mexico, Arizona, Utah, and Colorado. The Navajo Tribal government and the United States Public Health Service's Indian Health Service, Navajo Area offices are located in Window Rock, Arizona. The Committee's initial meeting was held at the IHS office on May 24, 1976. IHS officials at this meeting were John G. Todd, Dr. P.H., Director, Division of Program Operations; Eugene R. Meyer, Chief, Environmental Health Services Branch; Marlene A. Haffner, M.D., Director, Navajo Area Indian Health Service; Donald C. Meyer, P.E., Director, Office of Environmental Health and Engineering, Navajo Area; Jack Womack, Chief, Environmental Health Services Branch, Navajo Area; Marie Allen, R.S., Assistant Area Director, Navajo Area; and Keith Sherer, Chief, Sanitation Facilities Construction Branch, Navajo Area.

Nicholas Pohlit opened the meeting, expressing appreciation for the Association's opportunity to evaluate the Navajo Area Environmental Health program.[1] Dr. Todd presented an overview of the Indian Health Service's comprehensive health programs and discussed current and pending legislation and its impact on these programs in the future.[2] He also expressed confidence that the review will result in improved programs for the Navajo people.

Dr. Marlene Haffner and the Area Environmental Health staff presented an overview of the comprehensive health care delivery system provided on the Navajo Reservation with particular emphasis on environmental health and its role in the overall delivery of health services.[3]

The Committee then visited Tribal offices in Window Rock and Ft. Defiance, observing the working relationship between the Indian Health Service and the Navajo Tribe and gaining further insight into programs operated by the Navajo Tribe.

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[1] A copy of the Agenda is attached as Exhibit A.

[2] See Exhibit B - Statement by Director, IHS.

[3] See Exhibit C.

On May 25, the Committee reviewed the Environmental Health program of the Gallup Service Unit and toured the Gallup Indian Medical Center. Then they went to the Crownpoint, New Mexico, Service Unit for a similar review. On May 26, the Committee reviewed the Shiprock Service Unit and observed the decontamination process at the Shiprock uranium millsite and other ongoing activities.[4] On May 27, the Chinle, Arizona, Service Unit was reviewed. A wrap-up session was held in Window Rock to provide the Area Director and staff with comments on the review and to thank the Navajo Indians for the cooperation and courtesies extended to the review Committee.

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[4] A Status Report on Evaluation of Inactive Uranium Mill Sites is attached as Exhibit B.

OBSERVATIONS AND RECOMMENDATIONS

The Committee was impressed with complex problems which arise in developing and carrying out a quality environmental health program for the Navajo within the constraints established through treaties, tribal mores, intergovernmental working relationships, and the general geophysical characteristics of the area. It was quite evident that program development is a slow process when it must serve people who are widely scattered over some very rugged and primitive terrain and whose nomadic customs, tribal concerns, and religious beliefs must be accommodated in the process.

The close working relationship which exists between the professional staff of the Indian Health Service and the Navajo personnel who provide technical and advisory support was a major program strength noted by the survey team. The Committee was constantly aware of the challenges facing the Environmental Health staff in translating technical problems and program needs into the language and mores of the Navajo. Program planning must be modified to fit the process of Navajo acceptance of modern health practices into their culture. This fact was a common denominator of every activity reviewed by the Committee, and members were individually impressed by the OEHE staff's ability to operate effectively within these constraints.

During the rather extensive survey of OEHE installations and programs, several areas of particular concern were noted by the Committee and discussed with the staff. The following comments and recommendations relate to the major needs identified during these discussions:

1. Environmental Health Personnel -- The Committee believes that, because of the broad scope of the environmental health program on the Navajo Indian Reservation, the personnel should be almost doubled in order to adequately maintain the program. This need was particularly identified through discussions with service personnel during the course of visits to facilities such as the hospital complex in Gallup.

2. Institutional Personnel -- Problems unique to medical care complexes demand specialized skills and sophisticated environmental administration and control programs not generally covered by the training and background of general staff sanitarians. Presently such specialized skill is only available through the institutional sanitarian in the central office at Window Rock. There are indications that additional personnel possessing institutional environmental control training are needed to service the new major medical facilities which are in the process of development, as well as those presently operating on the reservation. Operational responsibilities of institutional sanitarians should include interpretation of national and local health, safety and building codes, disaster planning, epidemiology, microbiology, noise, insect and rodent control, and development of procedures for environmental control in areas such as infection control and solid waste.

3. Veterinarian -- A number of diseases which can be transmitted to humans from animals constitute serious challenges in disease control on the Navajo Indian Reservations. Both bubonic and pneumonic plagues have been associated with small-rodent populations prevalent on the reservation; rabies is a threat which is aggravated by the prevalence of large feral dog populations, coyotes, and related vectors of rabies which live in close association with the human population. Hydatid disease is associated with the extensive sheep herds essential to the Navajo economy.

Programs for control of the animal health problems on the reservation are presently carried out by field sanitarians and biological aides with minimal professional input by part-time veterinary practitioners from the region. It is believed that the critical nature of the disease control problems associated with the area animal populations commands the full-time intervention and overview of a veterinarian. It is recommended that such services be secured.

As an intermediate measure for intensifying veterinary involvement, it is recommended that a memorandum of agreement be initiated between the Indian Health Service and the Navajo Community College to secure veterinary consultant services on a part-time basis and that continued coordination with veterinarians from the Center for Disease Control in Atlanta be maintained and utilized on a maximal basis during periods of specific need. In addition, the Navajo Tribal Council should be encouraged to increase their coyote and stray-dog control program in order to reduce the likelihood of a rabies outbreak.

4. Water Management -- Small flood control programs should be developed as an essential water conservancy effort, as well as to control or reduce flood damage. Maintaining adequate and accessible drinking water sources is a major difficulty hampering development of the reservation. It was readily apparent to the Committee during discussions with members of the Navajo Tribal Utility Agency (NTUA) and the Office of Environmental Health Engineering (OEHE) that significant volumes of water resources available to the reservation are lost in runoffs during wet periods. Retention of run-off improved impoundment practices and flow augmentation programs are critical priority needs.

It is recommended that the members of NTUA and OEHE renew efforts to encourage the U. S. Army Corps of Engineers to develop small flood control projects in strategic locations on the reservation under enabling federal legislation. In addition, consideration should be given to using treated effluent from the growing numbers of central wastewater treatment systems for irrigation and ground water recharge purposes.

5. Vector Control -- Vector control is one of the areas in which the Committee identified need for additional trained personnel. Because of staff shortages, untrained community health representatives are handling and dispensing toxic materials in and around human habitations.

During the Committee conference at the Shiprock Station, it became evident that such personnel were often unaware of the specific problems associated with handling and dispensing toxic materials and that potentially hazardous practices resulted because of the lack of qualified technicians. In addition, discussions with and demonstrations by field personnel at Crownpoint and Shiprock Stations revealed a lack of awareness and concern on the part of Navajo Indian technicians for personal protective measures against exposure to infected insects and toxic materials during the course of their duties.

During the Crownpoint visit, the Committee reviewed the vector program in the plague-infected area and learned that the biology aides who collected fleas and dusting burrows did not properly protect themselves against flea bites. All personnel working in known plague-infected areas should either use a repellent such as OFF^{R} or DEET^{R} (diethyl toluamine) or use outer clothing impregnated with the Department of Defense M-1960 repellent or an equivalent compound.

It is recommended that personnel assigned duties involving toxic materials be given adequate and continuing training in the handling and dispensing of such materials. In addition, personnel working in disease-infested areas should be required to carry out personal protective practices while at risk.

6. Safe Housing -- Mobile Homes -- Members of the Committee were impressed by the potential hazards associated with the location of mobile homes in areas where high-wind velocities are not uncommon. The expanding utilization of the mobile home for housing was observed in the Crownpoint, Shiprock, and Chinle Station areas. At no time were anchor constraints observed or other means evident or used for preventing the tipping of trailers during gale winds.

It is recommended that the Tribal Council be approached with this problem and that amendment to the current building code requirements include anchoring devices for mobile homes. It is also recommended that a program of installing anchors for current housing be initiated in cooperation with the Tribal Council.

7. Uranium Mill Decontamination -- The Committee visited the abandoned uranium mill and tailings area at Shiprock and spent considerable time reviewing the decontamination program for this area. It is understood that similar inactive uranium mill sites exist at Mexican Hat, Utah, and Tuba City, Arizona. The Committee reviewed the decontamination activities now being effected at the abandoned mill sites as covered in Exhibit F of this report. The ready accessibility of the site to residents of the Shiprock community and the close proximity of housing facilities to exposed mill tailings raised concern in the minds of the Committee members for additional measures to restrict public access to this area.

It is recommended that the Indian Health Service advise the Navajo Tribal Council on precautionary steps to be taken against radiation exposure to individuals who may inadvertently traverse the tailings area. Extensive fencing of the area should be considered, and warning signs posting the area as "OFF LIMITS" should be erected on the site boundaries in Shiprock.

8. Solid Waste -- Open dumping and burning of solid waste was observed in the vicinity of the Crownpoint and Chinle Stations. Discussions with the NTUA officials indicated that they were cognizant of a solid waste disposal problem which is becoming more aggravated as public housing programs are expanded. The Committee urges the OEHE staff to explore with NTUA the possibility of instituting a comprehensive solid waste collection and disposal system as additional dimension of its utility program. It is recommended that comprehensive collection and disposal programs become an intrinsic part of the public housing developments as they are expanded. Such service should be instituted in existing housing areas and open dumping and burning halted when more appropriate systems become available.

9. Silver Smithing Safety -- The Committee had the unique opportunity of visiting and observing a native silver smithing operation near Lukachukai, Arizona, in which some 50 Indians are employed. It was very evident that occupational safety and health hazards are common to this operation, and we were informed that these conditions are generally common to the silver smithing industry on the reservation. Specifically observed were Indians working with blow torches in enclosed areas which were poorly ventilated, as well as working without any eye protection or means of guarding against potentially toxic fumes from flux and heated metals. In addition, observed turquoise cutting and buffing practices added to the potential for accidental injury in the processing of jewelry.

It is recommended that the OEHE staff work with the Tribal Council in improving occupational safety and health practices associated with this trade, including worker safety training programs.

10. Training -- Meetings and conferences with OEHE personnel and staffs at Gallup, Crownpoint, Shiprock, and Chinle sites revealed a need for expanding in-service training programs as a means of technician upgrading and program improvement. Recognizing fiscal constraints and the budgetary lag-time involved in developing an expanded program, a modification of current practices for in-service training appears advisable.

The Committee recommends that individual staff members who receive short-term training be required to return and use this experience for training selected personnel within the service units. Such responsibility should stimulate greater application and commitment by those selected for training, and it should result in increased cost-effectiveness for dollars invested in personnel education and training.

11. Office Space — The Committee was impressed with the lack of suitable office and support facilities in some stations. This was particularly evident at the Crownpoint Service Unit, where crowded conditions and inadequate storage and support facilities were obvious handicaps. The Committee wishes to stress the importance of self-image in maintaining a high level of staff commitment and efficiency, particularly when working under handicaps arising from personnel limitations and isolated assignments.

The Committee recommends that every effort be made to expand and upgrade the available facilities and space for the Crownpoint Service Unit.

12. Communications System — As the Committee toured the reservation, they were increasingly impressed with the distances involved in carrying out programs and services assigned to the OEHE staff. Discussions with field staff indicated a great loss of time and difficulty in carrying out missions in remote areas where unforeseen circumstances arise, where back-up technical assistance and advice is needed, or other emergencies are encountered. It became evident to the Committee that a very high priority should be placed on the development of two-way communications systems, both fixed and mobile, between the central offices, medical centers, field station facilities, and agency vehicles. The value of such a network would improve the efficiency of personnel in the field, provide back-up assistance in handling emergencies, reduce the current high-level time loss spent in return visits to remote areas, and otherwise expedite the services of limited personnel attempting to cover the 25,000 square-mile reservation area.

ACKNOWLEDGMENTS

This review is the result of a cooperative undertaking; therefore, the Indian Health Committee must acknowledge those who made indispensable contributions. First, we want to thank the Navajos, who shared their thoughts and lives with us.

Second, we have received much help from the Indian Health Service and personnel employed by the Navajo Tribal Council, between which we noticed a close working relationship.

Finally, we are grateful to the authors of two works consulted in preparing the background section of this report. Those writers and information about their books follow: The Navajo by Clyde Kluckhorn and Dorothea Leighton; Copyright 1962 by The Natural History Library Anchor Books, Doubleday and Company, Inc., Garden City, N.Y. The second book is The Navajo Indians and Federal Indian Policy by Lawrence C. Kelly; Copyright 1968 by The University of Arizona Press.

EXHIBIT A

INDIAN HEALTH COMMITTEE

AGENDA

MONDAY, MAY 24, 1976

8:00 - 9:00 AM	Committee Orientation
9:00 -10:00 AM	Staff Meeting
11:00 - NOON	Orientation by OEH Staff Lunch
1:00 - 2:00 PM	Tribal Officers - Window Rock
2:00 - 3:00 PM	Navajo Tribal Utility Authority
3:00 - 4:00 PM	Water and Sanitation Division
4:00 - 5:00 PM	Sanitation Facilities Construction Support Center

RON - Gallup

TUESDAY, MAY 25

8:00 - 11:30 AM	Gallup Indian Medical Center
	Lunch
12:30 - 1:30 PM	Travel to Crownpoint
1:30 - 4:00 PM	Crownpoint Facilities
4:00 - 6:00 PM	Travel to Farmington

RON - Farmington

Exhibit A--2

WEDNESDAY, MAY 26

8:00 - 10:00 AM	Meet Service Unit Staff
10:00 - 12:00 AM	Navajo Engineering Construction Authority
12:00 - 1:30 PM	Mill Site and Monitoring
1:30 - 2:30 PM	Lunch
2:30 - 5:00 PM	Travel to Chinle
RON - Chinle	

THURSDAY, MAY 27

8:00 - 9:00 AM	Meet Service Unit Staff
9:00 - 10:00 AM	Sanitarians Activities
	A. Typhoid - PHS, Engineering and Medical Staff
	B. BIA Schools and Contract Schools
12:00 - 1:00 PM	Lunch
1:00 - 2:00 PM	Travel to Window Rock
2:00 - 5:00 PM	Wrap-up Session
7:00 - 9:00 PM	Executive Committee Meeting

EXHIBIT B

Statement by the Director, Indian Health Service
Health Services Administration
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
on
"Indian Health Services"
"Indian Health Facilities"

The Department of Health, Education, and Welfare's (HEW) primary agency concerned with the delivery of health care to the American people is the Health Services Administration (HSA). The Indian Health Service (IHS) is a major component of the Health Services Administration and is the focal point of efforts by the federal government to carry out its unique legal and historical responsibilities toward Indian and Alaska Native people in health matters. The goal of the IHS is to elevate the health status of Indians and Alaska Natives to the highest level possible. Its mission is to assure the availability of comprehensive health services in pursuit of the goal, while at the same time providing opportunities for Indian management and operation of these health programs.

Historically, the IHS has provided health services to Indians living on or near federal reservations, in traditional Indian country in Oklahoma and in hundreds of communities in Alaska. The number of Indians served, including Indians, Eskimos, and Aleuts of Alaska, now is about 518,000.

PROGRAM ACTIVITIES

The IHS provides a comprehensive program of preventive, curative, rehabilitative and environmental services for the people through an integrated delivery systems. This system is operated through 88 local administrative organizations known as Service Units containing a network of 51 hospitals, 99 health centers, including school health centers, and over 300 health stations and satellite clinics. The system is staffed by about 8,000 persons over half of whom are Indian.

The purchase of medical care through contractual arrangements is one essential element of Indian Health Service programs. Contract care is used to supplement and complement other health care resources available to Indian people. Through contract care, contractual agreements for health services are entered into with hospitals, private physicians and clinic groups, dentists and providers of ancillary health services. Contract care is utilized in situations where: no direct care facilities exist; the direct care element is not capable of providing required emergency and/or specialty care; or the direct care element has an overflow of medical care workload; and supplementation of alternate resources is needed in order to provide the most comprehensive care possible to eligible Indian people. The use of the contractual mechanism is particularly well suited to the direct service program because of (1) the scattered geographic distribution of the Indian people; and (2) the small size of many of the Indian hospitals that cannot provide specialized services.

Exhibit B--2

The following illustrate some major examples of program efforts by the IHS to meet the needs of the Indian people.

Otitis Media

Otitis media (middle ear disease) always has been a serious health problem among Indians, and in the last decade it has replaced tuberculosis as a major health problem, inflicting serious and often permanent damage.

The prevalence of the disease and the accompanying demands for prolonged treatment, curative and restorative surgery, and rehabilitation created a workload that was impossible to meet with regular program resources. Congress appropriated funds for an otitis media program, enabling the Indian Health Service to institute the kind of program necessary to bring this serious problem under control. The President's Budget augments this effort by proposing additional support.

Mental Health

As the Indian people have been caught more and more in the conflict between their traditional culture and the demands of modern American society, mental health problems have increased. The seriousness of mental health problems among Indians and Alaska Natives is demonstrated in the age adjusted suicide rate which is 1.8 times as high as that of all races and a homicide rate 3 times as high. Indian deaths from alcoholism are 6.2 times as high as in the general population.

Emotional problems and behavioral disorders are frequent among Indian children in their struggle for identity and achievement of self-sufficiency in a new social environment. There is an increasing need for the mental health component in child guidance and counseling, and for the development of new and effective methods to prevent further trauma to the growing child.

In fiscal year 1976, professional mental health teams are working in all Indian Health Service areas, and a fully functioning inpatient mental health program has been operational for four years at Gallup. Indian mental health workers are performing a major part of mental health services in their respective communities, and numerous projects in alcoholism control are developed and operated by Indian communities.

Nutrition

In spite of improvement in the quantity and nutritional quality of their available food supply, substantial numbers of Indians and Alaska Natives still do not have sufficient food and/or food of high nutritional quality to prevent or overcome the relatively common evidences of mild or moderately severe nutritional problems. This is particularly significant for those at highest nutritional risk: infants, pre-school children, prenatals, females in the childbearing years of 15-44, the elderly and the chronically ill. Lack of understanding of the relationship of food to health continues to be widespread.

Exhibit B--3

Poor nutritional status may be associated with prematurity, retarded physical growth and development, underweight as well as obesity, a high incidence of infectious disease (particularly gastroenteric and respiratory), chronic disease and injury, unfavorable intellectual and emotional development, and poor performance during pregnancy.

Proper nutrition will contribute to the prevention of prematurity in infants. There also is growing evidence that the adequacy of nutrition during fetal life and early infancy may affect intellectual and behavioral development as well as physical growth and development.

Dental Health

The Indian Health Service dental program provides: (1) preventive and clinical services through both the field health and contract dental program, (2) evaluation, planning and consultation services using its dental data system and published professional criteria and standards, (3) recruitment and career development of dental staff, (4) specialty clinical and laboratory services, and (5) community development services. It promotes community use of clinical services and water fluoridation, and the development of oral health resources. The program provides oral health services in 146 dental clinics, with 29 mobile dental units, with portable field equipment in hundreds of isolated rural communities, and through more than 700 privately practicing dentists. It is estimated that the program meets 42 per cent of the estimated need for dental services.

Maternal and Child Health

The high rate of illness and death among infants in the first year of life is met with emphasis on early prenatal care for the mother and continuing care after she and the baby leave the hospital. Health education activities are conducted to teach the mother proper ways to feed, bathe, and care for her family within the often limited resources of her home, how to recognize illness, and why it is important to observe good health habits and make regular visits to the clinic.

Nurse midwife programs have been introduced to reach mothers living in isolated areas. The first such program, initiated in Alaska in 1970, to expand and improve the health care of mothers and children, demonstrated the role a nurse midwife can play in reducing maternal and infant deaths. Similar programs have since been instituted in Shiprock and Gallup, New Mexico; in the Fort Defiance, Tuba City, Keams Canyon and Chinle Service Units in Arizona; in Pine Ridge and Rosebud, South Dakota; Lawton, Oklahoma; and Anchorage, Alaska.

Public Health Nursing has been actively involved in growth and development counseling and close follow-up supervision of high-risk mothers and infants, done directly and through other community workers.

Exhibit B--4

Environmental Health

The hazards of crowded living conditions and the lack of safe water and adequate waste disposal facilities have been and still are contributing factors to the high incidence of environmentally related disease among Indian and Alaska Natives.

Since 1960 the IHS has been assisting Indian Tribes in the construction and provisions of sanitation facilities. With the completion of all of the work undertaken or programmed through fiscal year 1976, it is estimated that over 48,500 existing Indian homes will have water and waste disposal facilities. In addition, under cooperative agreements with the Department of Housing and Urban Development, the Bureau of Indian Affairs and the Tribes, facilities will also have been provided to approximately 47,000 new or rehabilitated housing units for Indian families. The 1977 request will enable the Indian Health Service to initiate additional projects to provide water and other facilities for 6,000 new and rehabilitated housing units to be built under federal and tribal housing programs. Approximately 900 existing Indian homes located within or adjacent to housing project sites will also be eligible. Training will be provided to communities and homeowners in the proper use, care, and maintenance of these facilities.

Advocacy

One of the main aspects of the IHS program is the emphasis placed on equity of, access to, and quality of health services for Indian people. For most Indians, the IHS represents the only source of health services available to them. This is the result of isolation (both geographic and cultural), poor transportation, poor roads, and economic deprivation. These services are provided as a result of federal obligation derived from treaties, laws, court decisions, and Congressional actions. However, in addition to these special programs for Indians, provided because of their status as Indians, these people also are entitled to participate in the full range of programs open to them as citizens of their country, states, and communities. To encourage awareness of, and participation in, these programs designed to serve the general public, the IHS serves as the principal federal advocate for Indians in the health field. Thus, it seeks to make Indians themselves aware of their rights to such programs. It also acts on their behalf in efforts to make other federal, state, and local governmental agencies and those in the private sector, aware of their responsibilities; and it encourages them to act in a positive manner in considering the needs of Indian people and the abilities of their programs to help meet these needs. Some success in these endeavors has been achieved. For instance, Indians are now assured participation in the medicaid program of the Social and Rehabilitative Service.

Other programs within the HSA provide substantial assistance to the Indian people. In addition to HSA programs, many other programs of the Public Health Service, such as the Center for Disease Control, Health Resources Administration, National Institutes of Health and Alcohol, Drug Abuse and Mental Health Administration have made significant contributions to Indian health status. Other components of HEW also contribute, as do other federal departments, including Agriculture, Interior, and Labor.

Exhibit B--5

INDIAN INVOLVEMENT

P.L. 93-638, The Indian Self-Determination and Education Assistance Act

One of the principal forces influencing the development of Indian policy is the concept of Indian management of their own health affairs. This concept of self-determination, espoused by both the legislative and executive branches, has reached fruition in P.L. 93-638, the Indian Self-Determination and Education Assistance Act. This landmark law recognizes the special and unique relationship with the federal government enjoyed by Indians and provides specific directives and mandates to the two principal Federal Indian Agencies regarding Indian operation of federal programs. Recognizing the importance of this new law, the Department of Health, Education, and Welfare, through the Indian Health Service, has taken extraordinary means to seek and include the recommendations of the Indian people in the drafting of the regulations needed to implement this Act.

In the ten months during which the regulations were formulated and published, the IHS held meetings to solicit comments from interested Indians. Draft regulations were widely determined, again with the object of soliciting Indian input. At all stages of development of the regulations, particular effort was made to respond to the resultant recommendations of the Indian people; and, where at all possible, they were incorporated in the regulations published November 14, 1975.

The enactment and implementation of this Act provides the culmination of many years of effort on the part of the Indian people, the Executive, and the Legislative branches of the government. The Indian Health Service is providing assistance to Indian communities and individual Indian people in acquiring the experience, skill, and knowledge necessary in operating their own health enterprises. It is also assisting Indian people in the creation and development of health institutional capacities through which Indian efforts can function. This new law provides a great impetus to the achievement of self-determination for Indian people and will enable the IHS to maximize its programs regarding Indian participation in setting their own health objectives and operating their own programs.

Community Program Guidance and Operations

During the past decade, the Indian people have shown great initiative in involving themselves in the management of their programs. They have established a tier system of Indian-operated institutions through which they provide leadership and guidance to the Indian Health Service at all its functional levels. These instrumentalities are health boards, established by, and responsible to, the Indian tribal government. The local community board, functioning at the Service Unit level, provides a mechanism for tribal initiative in establishing health priorities, budget management, and personnel selection and utilization.

Representatives from community boards are selected to represent the various local groups at the area level. Their responsibility is to function with the Area Director and his staff in matters pertinent to area level operations, programs, and policies.

Exhibit B--6

The apex of this tier system of consumer input is the National Indian Health Board and the National Tribal Chairman's Association, which function on a national level.

These boards have been created as a result of Indian initiative aud desire to assume responsibility for managing their programs. They are responsible to the Indian people and at the same time provide a vehicle for input into how their programs are managed. These boards are instruments of tribal governments, to which the Indian Health Service basically relates in the conduct of its program.

PROGRESS

To continue the success shown by the Indian Health Service to date, it is essential that it continue to be postured to meet current challenges, including those arising out of the passage of P.L. 93-638. Continued progress has been made in upgrading physical plants. For instance, since 1955, 17 hospitals, 20 health centers, and 58 field stations have been constructed. A new 80-bed hospital at Claremore, Oklahoma, will open in the early spring of 1977. Planning is completed for a new hospital at Acoma-Laguna-Canoncito and replacement hospitals at Santa Fe, New Mexico, and Whiteriver, Arizona. Phased construction funds have been appropriated in 1976 for the Bethel, Alaska, replacement facility. A completed master plan study is currently being evaluated for the hospital facility at Browning, Montana. Master plan studies recently completed for Rosebud, South Dakota; Sacaton, Arizona; and Red Lake, Minnesota, recommended replacement facilities in lieu of modernization. Planning funds for replacement facilities at Red Lake, Minnesota, and Cherokee, North Carolina, and a new facility at Ada, Oklahoma, have been appropriated.

In fiscal year 1976, construction funds also were appropriated for health centers at Lummi, Washington, and Menominee, Wisconsin. Facilities, therefore, represent a substantial long-term investment in Indian health.

The program has continued to expand as the federal government, together with the Indian people, strive to meet the increasing health needs of the Indian people. The demands placed upon facilities and staff are a recognition of the growing importance placed by the Indian people on adequate health care. One example illustrates this increasing demand. Outpatient visits to Indian Health Service and contract facilities have increased from about 1,500,000 in 1963 to 2,759,000 in 1975. It is estimated that in 1976 they may reach 2,800.000. Dental Services provided in 1975 are 2.5 times those provided in 1963, 947,000 compared with 385,000.

The results of efforts to improve the health of Indians are encouraging, indeed. Since 1955, for example, the Indians and Alaska Native infant death rate has been reduced by 70 per cent and the death rate from certain diseases of early infancy is down 69 per cent. The death rate from gastritis and related diseases has dropped by 83 per cent, and the influenza and pneumonia death rate is down by 67 per cent. These gains reflect a greater chance of life for the infants and a greater survival rate for Indian people as a whole.

Exhibit B--7

CONTINUING CHALLENGES

As stated previously, the Indian Health Service hopes to raise the health of Indian people to the highest levels possible. In spite of dramatic improvements, there still remain many areas in which the health levels of these people fall below those of the general population. For example, in the fiscal year 1974, the infant death rate among Indians and Alaska Natives was still 1.1 times higher than the rate in the nation in general. The tuberculosis and diabetes age adjusted death rates were 6.5 and 1.8 times that of the general population respectively, while the rates for influenza and pneumonia exceeded the all races rate by 1.5 times. The age adjusted death rate for cirrhosis was 4.4 times higher; and the rate for accidents, the leading cause of death among Indians, was 3.2 times higher.

In the face of these remaining challenges, the Indian Health Service expects to continue pursuit of its goal and mission by continuing its efforts to manage its resources in innovative ways consonant with health needs, in order to assure that comprehensive health care is available to the Indian people who need it. This will be done in ways that assure Indian community control and direction of programs which are designed to meet their needs. They will continue to be encouraged to exercise their options regarding program control and operations.

To continue the program, the 1977 appropriation request contains $314,594,000 for Indian Health Services and $40,345,000 for Indian Health Facilities. This increase in services will provide $27,851,000 for mandatory increases. Included in the request is $12,000,000 to fund alcoholism projects previously funded by the National Institute of Alcohol Abuse and Alcoholism. The $40,345,000 in construction will provide sanitation facilities for 6,900 Indian homes ($32,445,000); the second construction state for the Santa Fe hospital ($6,790,000) and equipment requirements for the new hospital at Acomita, New Mexico ($1,110,000).

EXHIBIT C

NAVAJO ENVIRONMENTAL HEALTH REVIEW

BACKGROUND

Brilliantly blue, the sky rims the desert terrain that is home to the wildflowers, deep-cut canyons, and rainbow-colored rocks worn into fanciful forms by wind, water, and weather. But it is home to far more than nature's handiwork.

This is Navajo Country.

Today more than 150,000 Navajos live on the reservation, which encompasses 25,000 square miles of mountains, rolling plains, and desert in Arizona, New Mexico, and Utah in an area known as the Four Corners, where Colorado joins them.

Constituting the largest Indian tribe in the country, the Navajos call themselves Dine, "The People," for Navajo is a Spanish word and not their own word for the tribe. They are members of the Athabascan language group which migrated from Asia to the Northwest Pacific Coast of America and moved to the Southwest about A. D. 1000.

On the reservation, originally established in 1868, the Navajos raised sheep, cattle, and crops. Indeed, agriculture was the basis of their economy, which boomed with the introduction of domestic animals and possibly the transition to a capitalistic economy. Sheep and goats, brought to the Southwest by the Spaniards, also provided a large food supply, which was instrumental in the increased population on the reservation, which has tripled since 1868.

Livestock further changed the Navajo economy in that it supplied the Indians with a steady source of exchangeable wealth, permitting the acquisition of metal tools and other manufactured goods.

Today, most still are employed in agriculture-related fields and in lumbering and mining, although many earn their living through crafts such as silversmithing and the precision blanket-weaving for which the Navajos are widely known.

Using a kaleidoscope of color combinations, Navajo women have woven intricately-patterned rugs that have been sold commercially since 1890. Navajos themselves generally do not wear the products, using their homemade textiles only as saddle blankets.

Their marked creativity also is shown in the silversmithing, which chiefly is done by the Navajo men, although many are aided by their wives, who do lighter work such as turquoise setting. Most of the silver work is hammered, but more difficult cast work also is done and is highly valued.

Exhibit C--2

While the tradition of blanket weaving and silversmithing is probably one of the most widely known chapters in the Navajo history, to fully understand the people and their problems in the past and present, consideration should be given here to another historical chapter.

When the United States cook possession of the southwestern territories acquired from Mexico in 1846, protection was promised against marauding Indian tribes. That winter, the first military expedition was made against the Navajos. Later, more military operations were initiated, and the next 15 years were punctuated with the establishment of army posts within the Navajo territory, and treaties were negotiated with Navajos whom the whites mistakenly believed to be tribal chiefs. After the agreements were broken by Indians not under the jurisdiction of these supposed Navajo chiefs, American officials viewed the tribe as untrustworthy.

During 1862 when the U. S. Army was fighting the Civil War, the Navajos and Apaches increased raids on Rio Grande settlements. Therefore, Kit Carson was ordered into Navajo country in 1863 with instructions to destroy all crops and livestock. Their land pillaged, the fleeing Navajos were pursued. Some were taken into custody, and the remainder were ordered to surrender at Fort Defiance.

In March of 1864, after the majority of the Navajos had surrendered, 2,400 of them, together with their horses, sheep, and goats, began what became known as "The Long Walk," 300 miles to Fort Sumner, a place 180 miles southeast of Santa Fe. Only children and the disabled rode to the fort, where 8,000 Navajos eventually were imprisoned.

Nomadic and unaccustomed to confinement, they were devastated by that and by the destruction of their livestock and land; consequently, their total dependence upon whites was established.

There, far from the vivid landscape they loved, drinking bitter water and eating alien foods, many became ill. In 1868, after being released, they returned home to the remnants of their former society to start over again. After some delays, they were issued seed and tools by the government. A drought of several years added to their misfortune.

Eventually, some prosperity followed; but the Navajos remained bitter about being required to surrender some of the best winter range land and watering spots to the encroaching railroad. Other areas later were added to the reservation as compensation, but they were not as desirable.

Originally, the Treaty of 1868 provided the Navajos with about 3,500,000 acres of land, much less than their people formerly had occupied. While that land has been extended, portions were taken away and use rights were disputed. For example, already-occupied grazing lands were opened to non-Indian stockmen.

Despite the tumultuous changes in their lifestyle in that lonely land of windswept splendor, desert plateaus, and scrub canyons, some things have remained unchanged.

Exhibit C--3

For instance, while the majority of Navajos are housed in modern homes and mobile homes, about 25 per cent of the families still live in the traditional, round-shaped hogans constructed of timber and clay. Generally, there are two types of such dwellings. The older variety had three forked poles as its chief support, but that is less popular than the more roomy eight-sided hogan that dominates today. Usually they are built either of logs or of stone and filled with mud mortar.

Architecturally, the hogan is a practical adaptation to the climate, with its thick wall repelling winter cold and at least partially protecting inhabitants from summer heat. A centrally placed fire to sit or sleep around is designed to keep occupants warm.

Spiritually, the hogan also holds great importance, for they are not just places to eat and sleep. The first hogans of turquoise, white shell or abalone shell, were built by the tribe's Holy People, powerful and mysterious folk to the Navajos. According to tribal beliefs, the hogan's door always must face the rising sun. New hogans are consecrated with a special rite.

Today Navajo society still is fundamentally matriarchial, with extended families commonly providing for persons such as an aged father or mother or the widowed, who are brought into the family's hogan. The Navajos maintain great consideration and respect for their families.

Moreover, there are Navajo clans across the reservation that primarily serve to identify distant relatives, thus preventing inbreeding. Each Navajo belongs to the clan of his mother but equally is thought of as "of" his father's clan, too. There are few violations of the prohibitions against marrying within these clans, as Navajos treat incest of this sort as witchcraft and view it as a repulsive crime.

Characteristically, Navajo men today wear clothing such as blue denim jeans, bright shirts and scarves, and large felt hats, while women wear long fluted, calico skirts and blouses, often of velveteen. Many women also wear Pendleton blankets, over the shoulders, except in summer.

Rather than trying to change the course of nature, which they believe is more powerful than humans, Navajos try to conform to the natural world. This is a centerpiece of their beliefs. Unlike many white persons, who believe nature should be harnessed and put to use, Navajos feel only natural forces, rather than human action, will determine such things as whether crops will succeed or fail.

Most dead persons - no matter how admirable during life - may return as ghosts to plague the living. But it is believed those who die of old age or those who are stillborn generally will not be dangerous to the living. Resembling humans, owls, mice, coyotes, whirlwinds or fire, ghosts are said to appear after dark or just before the death of some family member.

Exhibit C--4

It is said ghosts only are seen at night; usually they are dark or black and may change form or make familiar sounds such as bird whistles. To torment their victims, ghosts either chase them, throw dirt at them, or tug upon their clothing, it is said. It also is believed that the appearance of a ghost is an omen of disaster.

There also is a belief in witches, who are evil men and women acting separately or together to obtain the property of those they hate and produce the death or illness of those persons. Purportedly, they wear the hide of a coyote, wolf, or some other animal. It is believed that some plants and other substances are protection against witches, and ceremonial cures are performed to alleviate the victim's suffering and cause the death of the witch.

While there is no Navajo word for religion, they believe there are two classes of personal forces: the Earth Surface People, ordinary human beings both living and dead, and a second class, the Holy People. The latter are believed to be powerful and mysterious, traveling about on sunbeams, lightning, or the rainbow. The Holy People are not believed to possess moral sanctity, but they have great powers to help or hurt Earth Surface People.

Regarding personal values, much emphasis is placed on friendship with neighbors who are valued for helpfulness, dependability, and generosity. Many skills, such as the ability to sing, dance, or tell stories, are highly regarded by the Navajos, who don't concern themselves with such things as whether humans are basically good or evil. They believe all possess a combination of both traits.

Further, material possessions chiefly are valued only as a means of security, and obtaining riches is condemned. Indeed, great accumulation of wealth may cause the successful Navajo to be termed a witch. Instead, health and strength are considered the best success a Navajo can attain.

In personal dealings, much respect and integrity are paid to fellow Navajos. The rights of individuals, particularly regarding their personal property, always are respected. Spouses don't attempt to control the behavior of one another, and the wishes of children are so respected that if a youngster refuses to go to a school or a hospital, parents often will not force the child to go.

When there is illness in a Navajo family, the medicine man is still looked upon today for treatment by about half of those encountering physical or mental sickness on the reservation. Even many Navajos who receive treatment in a hospital will go home and be treated again by a medicine man.

He is a vessel of knowledge about ancient Navajo religious myths and recalls them in being doctor, counselor, priest, historian, and community leader to his people.

But to understand the importance of the medicine man, it is also necessary to know more about the Navajo philosophy of life, for unity of experience is emphasized. When a Navajo is sick, he believes he is fragmented. To be healed is to become whole again; and for that to occur, one must be in harmony with nature, family, and friends.

Exhibit C--5

Thus Navajos often view sickness as an imbalance between themselves and the Holy People, nature, or another person. Sickness is not viewed in solely biological or psychological terms. Since human nature is whole and indivisible to the Navajo, treating the body or parts of the body separately is not done.

Since sickness often is regarded as the result of supernatural causes such as witchcraft or evil spirits, the medicine man's charms and amulets, the beating of drums, shaking of rattles, and chanting of songs are used in his curative ceremonies.

There are about 35 such ceremonies, which are determined by the nature of the patient's problem. Particular problems call for particular healing rituals, which usually involve family and friends, take place within the hogan and with the patient participating as the protagonist, require elaborate staging and stylized sand paintings, which are drawn on the floor of the hogan.

To ward off disease, a charm or talisman commonly is worn. In the past it was common practice to burn the house in which death occurred, together with the belongings of the dead person. Even today, few Navajos will live in a house in which someone has died or even willingly enter it.

This, the largest Indian tribe in the United States, faces severe and unique health problems. The climate, terrain, housing, drinking water, occupational exposures, inadequate roads, and endemic diseases all pose a continuous and real environmental health problem to Navajo people.

Many diseases seen here are the result of the poor economic conditions. Infectious diseases such as salmonellosis, shigellosis, diphtheria, and tuberculosis are seen frequently. Chronic Otitis media is still a serious problem.

The Navajo people take an active interest in their own health programs. The Health, Alcoholism, and Welfare Committee of the Tribal Council was founded in 1937. Since that time they have played a vital role in the planning, implementation, and evaluation of the health program. The Indian Health Service, with the concurrence of the Tribal Council, stimulated the formation of local health committees at the community level.

The Indian Health Service is engaged in setting and achieving goals to improve the health of the Indian people through an integrated, comprehensive health delivery system, which includes provision of health care facilities for Indian people.

An important facet of the integrated delivery system is the environmental health program. Lack of basic sanitary facilities, gross unsanitary practices, and inadequate understanding of modern health and sanitation continues to exist. Much effort by the Navajo Tribe and the Indian Health Service has gone into educating the people in this area.

NAVAJO PRAYER

I AM ONE OF A TRIBE

I am one of the original inhabitants of America.
I am one of a Tribe.
I stand for the rights and wisdom of my Indian brothers.
I will forever more offer blessings for the benefit of my people, who are the original inhabitants of America.
I am proud to be a native and also am proud of my heritage.
I have learned to respect my elders and, in return, they are doing the same.
I have the desire to reason and see the values of the Indian culture.
I am to attain spiritual powers so I don't have fear when death approaches me.
I am to give thanks; but if I have no reason, the fault is within myself.
My tribe, I shall always hold, trust and cherish.
My preservation of the traditional ways will live as long as eternity is named.
My Navaho religion, as I believe, has many solutions to our today's problems.
My purpose of life is to have no end so the reality of the Great Spirit will become my goal.
My philosophy of the creation of men is to have beauty before, behind, above, and all around them.
My understanding of the spiritual path is also to suffer.
My dream for today and tomorrow is peace and unity.
My faith will always enlarge.
My vision will become broader.
My hope for all is to love one another.

By Eva Kahn
05.15.72

EXHIBIT D

Summary of S. 522
"The Indian Health Care Improvement Act"
as Passed by the House of Representatives
July 30, 1976

FINDINGS

Miscellaneous finding, the most important of which is that "the unmet health needs of the American Indian people are severe and the health status of Indians is far below that of the general population of the United States."

DECLARATION OF POLICY

"The Congress hereby declares that it is the policy of this Nation, in fulfillment of its special responsibilities and legal obligation to the American Indian people, to meet the national goal of providing the highest possible health status to Indians and to provide existing Indian health services with all resources necessary to effect that policy."

TITLE I - INDIAN HEALTH MANPOWER

Health Professions Recruitment Program -- Grants will be made by IHS to non-profit entities or tribes to identify Indians with potential for health professions training and to facilitate the enrollment of such Indians.
Authorization: $4.2 million over three years (F.Y. '78-'80).

Health Professions Preparatory Scholarship Program -- Grants by IHS to Indians for up to two years of compensatory preprofessional education.
Authorizations: $3.1 million over three years (F.Y. '78-'80).

Health Professional Scholarship Program -- Indian Health Scholarships to be awarded to persons who will eventually provide services to Indians. Recipients to be selected by IHS, with priority for Indians. Service obligation to be met through service in IHS, in the Health Services for Urban Indian program, or in a private practice which services Indians.
Authorizations: $19.0 million over three years (F.Y. '78-'80).

Indian Health Service Extern Program -- Recipients of Indian Health Scholarships will be entitled to employment in IHS during non-academic portions of the year.
Authorizations: $2.4 million over three years (F.Y.'78-'80).

Continuing Education Allowances -- IHS may provide allowances for health professionals to annually take leave of their stations forprofessional consultation and refresher training.
Authorizations: $0.5 million over three years (F.Y. '78-'80).

Exhibit D--2

TITLE II - HEALTH SERVICES

Funds authorized to eliminate backlog of health care services and to supply unmet services needs. Funds to be in addition to regular IHS appropriated funds. Specific authorizations as follows:

F.Y.	Positions	Amount
Patient Care		
'78	*	*
'79	225	$8.5 million
'80	300	16.2 million
Field Health		
'78	*	*
'79	85	$3.4 million
'80	113	$5.6 million
Dental Care		
'78	*	*
'79	80	$1.5 million
'80	50	$1.5 million
Community Mental Health		
'78	*	*
'79	30	$1.3 million
'80	30	2.0 million
Inpatient Mental Health Services		
'78	*	*
'79	15	$0.4 million
'80	15	0.6 million
Model Dormitory Mental Health Services		
'78	*	*
'79	50	$1.3 million
'80	50	1.9 million
Therapeutic and Residential Mental Health Treatment Centers		
'78	*	*
'79	10	$0.3 million
'80	5	0.4 million
Training of Traditional Indian Practitioners in Mental Health		
'78	*	*
'79	---	$0.2 million
'80	---	0.2 million
Treatment and Control of Alcoholism		
'78	---	$4.0 million
'79	---	9.0 million
'80	---	9.2 million

* See asterisk on following page.

Exhibit D--3

Maintenance and Repair		
'78	--	*
'79	20	$3.0 million
'80	30	4.0 million

*For F.Y. '78, the Secretary is authorized to apportion not to exceed $5 million total and sich positions as he deems necessary and appropriate for the programs enumerated above.

(For fiscal years 1981, 1982, 1983, and 1984, there are authorized to be appropriated such sums as may be specifically authorized by an Act enacted after this Act.)

TITLE III - HEALTH FACILITIES

Construction and Renovation -- Funds authorized for construction and renovation of hospitals, health centers, health stations, and other IHS facilities. Specific authorizations as follows:

F.Y.	Amount
Hospitals	
'78	$67.2 million
'79	73.3 million
'80	49.7 million
'81-'84	Such sums as may later be authorized.
Health Centers and Health Stations	
'78	$7.0 million
'79	6.2 million
'80	3.7 million
'81-'84	Such sums as may later be authorized.
Staff Housing	
'78	$1.2 million
'79	21.7 million
'80	4.1 million
'81-'84	Such sums as may later be authorized.

Construction of Safe Water and Sanitary Waste Disposal Facilities -- Fund authorized to supply unmet needs for safe water and sanitary waste disposal facilities in existing and new Indian homes and communities.

F.Y.	Amount
'78	$43.0 million
'79	30.0 million
'80	30.0 million
'81-'84	Such sums as may later be authorized.

Exhibit D--4

TITLE IV - ACCESS TO HEALTH SERVICES

Adds a new section 1880 to the Social Security Act which: (a) declares IHS facilities which meet accredition standards to be Medicare providers whether operated by IHS or by Indian tribes; (b) stipulates that unaccredited IHS facilities can be deemed eligible for Medicare reimbursement for one year if they submit to the Secretary an acceptable plan for achieving compliance with accreditation standards; (c) requires that any Medicare reimbursement received by IHS facilities would be placed in a special fund to be used to improve IHS facilities; and (d) requires that the annual report on this Act include information on activities under this subsection.

Adds a new section 1911 to the Social Security Act which: (a) declares IHS facilities which meet accreditation standards to be Medicaid providers whether operated by IHS or by Indian tribes; and (b) stipulates that unaccredited IHS facilities can be deemed eligible for Medicaid reimbursement for one year if they submit to the Secretary an acceptable plan for achieving compliance with accreditation standards.

Requires that any Medicaid reimbursements be placed in a fund to be used to improve IHS facilities.

Provides that the federal share of Medicaid costs of services delivered in IHS facilities be 100 per cent.

TITLE V - HEALTH SERVICES FOR URBAN INDIANS

IHS is authorized to enter into contracts with urban Indian organizations to provide assistance for establishing and administering: referral programs to make urban Indians knowledgeable of available urban health services; and direct health care programs for urban Indians. The provisions also include the following: the contractual conditions which the IHS may impose; the criteria for selecting urban Indian organizations for the purpose of contracting; general contracting provisions relating to Indians, most of which are similar to those contained in P.L. 93-638, the Indian Self-Determination and Education Assistance Act; an annual report requirement; and a requirement that the IHS review and submit to Congress (6 months following the end of the 1978 fiscal year) a report with legislative recommendations.
Authorizations: $30 million over three years (F.Y. '78-'80).

TITLE VI - AMERICAN INDIAN SCHOOL OF MEDICINE

The Secretary is directed to study the need for the establishment of an American Indian School of Medicine.

TITLE VII - MISCELLANEOUS

Various reports required.

Exhibit D--5

Regulations -- Deadlines established for issuance of regulations as follows:

Consult with Indian organizations within six months of enactment;
Issue NPRM within eight months of enactment;
Issue final regulations within ten months of enactment.

Implementation Plan

Within 240 days after enactment, the Secretary shall prepare and submit to Congress a detailed Implementation Plan for this Act.

EXHIBIT E

Program Information
on
Organizational Components of OEH

OFFICE OF ENVIRONMENTAL HEALTH AND ENGINEERING

The Navajo Area Office of Environmental Health and Engineering has as its goal the improvement of the health of Indian people. This is about the only thing which has not changed since the inception of the program in 1955. When transferred from the Bureau of Indian Affairs to the then Division of Indian Health, the Office of Environmental Health had a total of nine positions. The program consisted primarily of providing technical support to the Navajo Nation.

With the passage of the Sanitation Facilities Construction Act in 1959, the program expanded from only providing technical services to also constructing water and sewerage facilities and, as a result, additional engineering staff was added. Two branches were established then, the Environmental Health Services Branch and the Sanitation Facilities Construction Branch.

The Environmental Health Services Branch conducts inspections of: all commercial food service facilities and trading posts licensed by the Navajo Tribe; all Bureau of Indian Affairs installations; all Public Health Serrice medical and dental facilities; and of all radiographic equipment used in Public Health Service medical facilities. In addition, the Environmental Health Services Branch monitors water, food, and milk products used on the reservation; provides homeowner training in conjunction with Public Law 86-121 projects; plague surveillance and control activities; provides a rabies and dog-control program; coordinates the community safety program; provides technical assistance to the newly formed Water and Sanitation Division of the Navajo Tribe; and provides technical consultation and advice on environmental problems to the Navajo Tribe, community, facilities, and other governmental agencies.

In 1972 a third branch, called the Occupational Health and Injury Control Branch, was added. This branch was conceived and placed into operation to focus attention and to provide support to the Navajo Nation concerning the environmental impact of industry moving onto the reservation, such as strip mining of coal; coal-fired, electric-generating plants; mining and processing of uranium; coal gasification, and a myriad of other proposed industries. In addition, this branch was to focus more attention on accident and injury control problems among the Indian population and to implement federal regulations concerning occupational health and safety in the Indian Health Service facilities.

Exhibit E--2

SANITATION FACILITIES CONSTRUCTION BRANCH

GOALS AND ACCOMPLISHMENTS

It is estimated that there are some 26,000 Navajo families living in the Navajo Nation which includes Alamo, Canoncite, and Ramah. By the end of fiscal year 1976, approximately 11,000 of these will have been served with a water supply and waste disposal system. Our goal for fiscal year 1977 is to serve an additional 1,600 homes. This is dependent upon the number of houses to be constructed or improved during the year. We have been instrumental in having a reservation-wide operation and maintenance program established. Within the availability of funds and staff, we are supporting the necessary training, equipment, technical staffing, and other support required to get such an operation going.

It is planned to have 60 systems under their responsibility by the end of the fiscal year and another 20 during the next fiscal year. This is a large operation and has involved much staff time. In addition, three engineers have been assigned to this organization to assist them in becoming operational. Additional staff support will be required in the future. We also have an engineer assigned to the Navajo Tribal Utility Authority to provide technical assistance with the water and sewage systems they operate. This has been a big step and should vastly improve the operation and maintenance program. In order to be successful, however, support should be and has been given by the Navajo Area Indian Health Service to get this organization on sound footing. In order to provide support in the past, personnel and funds have had to be taken from an already inadquately funded and staffed construction program. Additional professional positions and funding are urgently needed to rectify this.

Because of the expense of providing a water source in the Navajo area, many systems have only one well. This means that should a pump go out, water cannot be supplied until the pump is replaced. Often this takes days. A capital improvement program is needed to provide each community with at least two sources of water and to upgrade old existing systems. No funds are available for this.

In 1975, recognizing the need for additional emphasis on the Indian Health Service facilities construction and maintenance program and to integrate the various engineering functions, the Construction and Maintenance Branch became a part of the Office of Environmental Health and Engineering.

As you can see, the Office of Environmental Health and Engineering program has not stood still in the 21 years of its existence. However, we feel that we need to continually analyze our program in view of the changing needs of the Nation and to modify or restructure it in accordance with those needs.

Although we consist of four branches, we feel that a team approach is required to most efficiently and economically address the responsibilities of the Office and to best serve the Navajo people. This will provide for a

comprehensive development of the individuals in the programs as well as providing a broad base of expertise to draw on. Examples of a team approach to specific problems or program management include the assistance of the Environmental Health Services Branch to prepare homeowners for a Public Law 86-121 construction project and the follow-up operation and maintenance training provided to recipients. Construction and Maintenance Branch, Occupational Health and Injury Control Branch, and Environmental Health Services Branch coordinate construction and inspection efforts in our quality-control program for Navajo Area Indian Health Service facilities. Sanitation Facilities Construction Branch staff provide technical consultation services to their Construction and Maintenance counterparts in the field and provide safety inspections for construction activities and assist Environmental Health Services Branch field staff in sanitary surveys of water and sewer systems. All branch chiefs are gaining a sufficient awareness of each other's programs so they may represent the total office on general policy and procedures during field trips.

The goal of the Navajo Area Office of Environmental Health and Engineering is to improve the health of the Navajo people. Objectives, accomplishments and unmet needs to meet this goal are listed by branches. Matching funds from other agencies obtained through the Tribe are a viable source for providing sanitation facilities on the Navajo Nation. Because all of our funding is tied to housing, we are limited in our ability to obtain or even request these matching funds.

UNMET NEEDS

At the end of fiscal year 1977, approximately 15,000 families will still not have a domestic water supply or waste disposal system for their homes. If current funding levels are continued, we will barely keep up with the population growth. Since available Public Law 86-121 funding is predicted on housing, we may not even keep up with the population growth!

It is our understanding that the Bureau of Indian Affairs' Home Improvement Program has been cut back. This has been a popular and economical way to obtain needed housing on the Navajo Nation. This program should be expanded rather than reduced and the Navajo Area Indian Health Service provided sufficient funds to provide sanitation facilities for these units.

Housing and Urban Development housing has never really gotten off the ground in the Navajo Nation. It is not expected to move very fast during fiscal year 1977. This severely reduces our ability to obtain funding.

Exhibit E--4

ENVIRONMENTAL HEALTH SERVICES BRANCH

This branch acts as consultants to the Navajo Tribe to ascertain the sanitation status of all commercial establishments licensed by the Navajo Tribe. Many of these establishments existed before Tribal Codes were adopted to govern their operations. Consequently, some of the buildings are quite old and in some instances poorly operated. In the past twelve months, the Navajo Tribal Commerce Department has closed two establishments because of unsanitary conditions. Other establishments have voluntarily closed to repair and clean the establishment.

Much remains to be accomplished in regard to the commercial establishments. With the support of the Navajo Tribal Commerce Department, we expect the trend of the commercial establishments in improving their service to the Navajo people to continue.

Commercial establishments occasionally renovate their building or change their operations outside the scope of their lease. The plans for the renovations are not submitted for our review and comments prior to construction. A new lease is sometimes granted without our knowledge. A closer working relationship with the land management agencies is needed. A formalized procedure should be promulgated to insure that all plans for construction, new or renovation, be submitted and approved before the commercial establishment's lease is approved or renewed.

A potable water surveillance program has been revitalized. Shallow well and spring projects and community water sources are monitored according to Chapter II of the Indian Health Service manual.

The new National Interim Drinking Water Standards will impose a more stringent sampling program. Costs for performing the required tests are increasing at an enormous rate, and some of the laboratory services are being restricted. The Navajo Tribal Utility Authority is operating a small laboratory, and the newly formed Water and Sanitation Division of the Navajo Tribe is attempting to obtain funds for a laboratory and mobile laboratory facilities.

Waste disposal, both solid and wastewater, is in need of improvement. The Indian Health Service, Navajo Tribal Utility Authority, Environmental Protection Agency, and the Manpower Training Administration have cooperated in establishing a training center to train water and wastepower plant operators. This will improve the operation of the facilities, as well as develop the skills of the Navajo people.

Plague surveillance is routinely conducted on the Navajo Reservation. Originally this consisted of locating and watching for "die-offs" in prairie-dog colonies. It has been found that adequate plague surveillance was much more complex because the small rodents, i.e., field mice and woodrats, are also vectors or carriers of disease-producing viruses. This presents a wide range of surveillance problems because of terrain, vegetation, and their small "territorial ranging habits."

Exhibit E--5

The Indian Health Service has started bleeding domestic dogs in an effort to locate dogs with a high titer for plague. This gives an indication where plague can be found in the small-rodent population. Control measures are initiated where indicated.

Possibly a better indicator may be with carnivores, such as the coyote, fox, etc. The Navajo Tribal Fish and Wildlife trap a number of these animals as a part of their predator-control program. We are in the process of training their personnel to collect samples from these animals.

Rabies control is a cooperative effort between the Navajo Tribe, the Bureau of Indian Affairs, and the Indian Health Service. Environmental Health Services Branch personnel conduct free rabies clinics each year. In addition the Indian Health Service supplies rabies vaccine to the Navajo Tribal Fish and Wildlife Department to vaccinate dogs running at large that they capture and impound.

Construction of dog pounds have not progressed as rapidly as desirable. Functional dog pounds are located in Fort Defiance, Shiprock, and Tuba City. The Indian Health Service has spent $80,000 in the past two years on this program. The Bureau of Indian Affairs was supposed to put up matching funds in labor and material. The Navajo Tribal Fish and Wildlife has had difficulty in securing the labor and materials from the Bureau of Indian Affairs. Currently, the Fish and Wildlife Department is in the process of canceling Tribal purchase orders with the Bureau of Indian Affairs and will attempt the construction and operation of the dog pounds.

Through an agreement between the Bureau of Indian Affairs and the Public Health Service, the Office of Environmental Health and Engineering is responsible for the sanitation surveys of all Bureau of Indian Affairs' schools.

The following comments are intended to illustrate the magnitude of the problems in the Bureau of Indian Affairs' school system which have an impact on the health, education, and welfare of Navajo children.

The Bureau of Indian Affairs operates 66 schools on the Navajo Reservation. These schools can be divided into two groups: 11 "Day Schools," which are operated for children that can return to their homes after each school day, and 55 "Boarding Schools," where the children stay for many months before returning to their homes.

Many of these schools were built in the early 1900's. The classroom/gymnasium building at Tohatchi, for example, was constructed in 1900. The Kinlichee, Baca, Nazlini, Hunters Point, Pinon, and many other "Boarding Schools" were built in the 1930's.

The physical conditions of the schools expose Navajo children and Bureau of Indian Affairs' staff to unsafe and unhealthful conditions and undoubtedly have a negative effect on the learning attitudes of the children. The older school buildings and dormitories have major structural deficiencies. It is not uncommon to find broken foundations, buckling doors, and cracks in the building walls. Even the new schools, built during 1955 to 1965, have major

deficiencies. These buildings were constructed hurriedly to provide schools for Navajo children who were being deprived of the opportunity to learn because school buildings for them did not exist. Immediately, problems were observed in these school buildings. Settling foundations, leaking roofs, wall cracks up to four inches wide, inadequate water supplies and sanitation facilities, and lack of proper food preparation and serving facilities were evident.

In some instances, monies were not available to construct adequate buildings. Red Rock School and others have had quonset buildings installed for classrooms.

Preventive maintenance of the Bureau of Indian Affairs' schools is at an all-time low. The accumulative effect of many years of inadequate funding has caused a tremendous backlog of needed repairs, alterations, and improvements. This seriously affects the health and safety of the students and employees.

"An Analysis of the Navajo Facilities Maintenance Problems," a document prepared by the Bureau of Indian Affairs Navajo Area Plant Management Office, shows the deplorable conditions of the Bureau of Indian Affairs' school facilities. The report also depicts the inadequate amount of funding received by the Navajo Area for maintenance of the schools. The Navajo Area Branch of Plant Management estimates that it would take approximately $110 million dollars to bring all of the facilities up to current standards plus approximately a 50 per cent increase in the present annual budget to keep the facilities in an acceptable condition.

This problem is compounded by the inequitable distribution of Bureau of Indian Affairs maintenance funds. The Bureau has an established policy for distributing maintenance funding among the Bureau of Indian Affairs areas. The Navajo Area, however, received only 66 per cent of what that formula says the Navajo school system should receive. Years of such consideration have taken their toll and have been partially responsible for the present-day physical plant conditions in which Navajo children seek an education.

The Public Health Service acts as a consultant to the Bureau of Indian Affairs on environmental health matters for these facilities. Although recommendations are made requesting improvements, without adequate funding the Bureau of Indian Affairs obviously cannot make the improvements. The Public Health Service is deeply concerned about the quality of the environment the Navajo children endure while trying to obtain an education. These conditions surely lead to other problems which detract from the quality of education they receive. This also tends to perpetuate the social, economic, and educational barriers that already handicap the Indian people.

A review of the environmental health surveys, which are conducted by the Public Health Service on a biennial basis, has yielded the following information: Approximately 3,500 environmental health deficiencies have been identified to exist in the Navajo Area Bureau of Indian Affairs' school system. This total includes: building, water, sewage and solid waste disposal, and food sanitation deficiencies.

With regard to water supply, the Bureau of Indian Affairs' schools obtain drinking water from shallow and deep wells. The water is stored in elevated tanks. The quality of the water is poor in many instances. Contaminates include high levels of fluorides, sulfates, sodium, total solids, and magnesium. These contaminates can and should be removed. Funds are needed for the construction and maintenance of the required facilities.

Proper solid and liquid waste disposal from the school facilities presents a problem. Solid wastes are hauled from the schools to the disposal site in open trucks. Papers, napkins, milk cartons, and other waste products are strewn along the roadside on the way to the dump sites. The open dump sites provide a harborage and breeding area for flies and rodents and a food source for wild dogs and other animals. More funding is needed to provide equipment and personnel to transport and maintain proper sanitary landfills.

Body wastes are a main link in the transmission of disease from one person to another. It is, therefore, of prime importance that these wastes be disposed of so as to control this avenue of disease spread. Many of the school sewage disposal systems, however, are hopelessly overloaded and inadequate. To correct this, the Bureau of Indian Affairs needs additional monies to build and maintain adequate sewage disposal systems.

A properly operated and equipped food service department is also of utmost importance in institutions of this kind and size. Some of the most urgent needs of the Bureau of Indian Affairs' food service departments are: adequate hot water supplies for washing and sanitizing eating and drinking utensils; adequate dry and refrigerated storage facilities; and refrigerated trucks to transport frozen foods from the central warehouse to the schools. To correct these deficiencies, the Bureau of Indian Affairs must receive additional funding.

The Public Health Service and other environmental health experts agree that a well-constructed and properly maintained school and properly maintained school and dormitory environment discourages unsanitary conditions and promotes a healthful environment. Such an environment is essential if our Navajo children are to maintain and develop desirable learning attitudes and practices.

The Office of Navajo Economic Opportunity operates pre-schools throughout the Navajo Reservation. The Indian Health Service performs comprehensive surveys of these schools. The schools generally are located in trailer houses, chapter houses, or abandoned buildings. Many of these schools do not have running water or proper sewage disposal systems. Recently one pre-school was closed because it did not have running water, lights, refrigeration, or waste disposal - not even a pit privy.

In addition, the Environmental Health Services Branch provides direct consultation and institutional sanitation service to the medical, dental, auxiliary and administrative staffs operating Indian Health Service hospitals, health stations, and clinics. Medical facilities located within the Navajo Area consist of six hospitals and twenty-five health centers and stations. A

comprehensive environmental health survey is conducted biennially at each of these facilities using the "Institutional Sanitation Guidelines" of the Indian Health Service. The purpose of these surveys is to identify existing environmental health deficiencies and to make recommendations for their correction.

This office also conducts and maintains an inventory of radiographic surveys of Indian Health Service facilities. The radiographic facilities located in the Navajo Area amount to almost one-third of all the radiographic facilities operated by the Indian Health Service.

This office reviews plans and specifications for all new construction or additions to hospitals and health clinics. Currently two new hospitals (Winslow and Shiprock) are in the designing stage. In addition, a number of health centers and stations are undergoing expansion and/or renovation.

HOME SANITATION ACTIVITIES

Home sanitation and motivation requires much of the Environmental Health Services Branch time. Motivation of the homeowner to construct bathroom space and prepare his home for the water and sewer services is provided under the Provisions of Public Law 86-121. After the project is completed, home visits should be made to assure the homeowner is utilizing the facilities and the facilities are functional.

COMMUNITY SAFETY

Accidental death and injury is very common in all communities on the Reservation. Highway accidents account for the major portion of accidental injuries and deaths. The Office of Environmental Health has certified Defensive Driver's Instructors in each Service Unit. Defensive driving courses are given for all government employees and other groups upon request.

Home safety courses are given to students of public and Bureau of Indian Affairs' schools. A concentrated effort was made in the Chinle Service Unit last year. It appears that the program was quite effective because the accident rate was much lower in the Chinle Service Unit than in the previous year.

UNMET NEEDS

There is a great need for increased laboratory facilities and an increase in funding to meet the costs to the additional sampling required by the new Drinking Water Standards.

There is no solid waste collection and disposal system on the Navajo Nation. A new program should be funded to provide the necessary personnel equipment and funding to implement a solid-waste program.

To adequately meet the rapidly increasing workload of the plague-control program, the current budget must be increased.

Exhibit E--9

It is recommended that the Office of Navajo Economic Opportunity be adequately funded to properly construct and operate the pre-schools they operate.

It is also recommended that the Bureau of Indian Affairs receive additional funding to properly maintain the boarding schools they operate.

The Navajo Tribe is in need of additional monies to construct dog pounds and to implement a Reservation-wide dog-control program.

Additional personnel are needed to monitor nosocomial infections in our medical facilities and to help reduce the incidence of these infections. This is now a requirement of the Joint Commission on Accreditation of Hospitals. If we are to maintain accreditation and provide good health care, these positions are a must.

The present staff cannot carry its complete work load and make the necessary home visits. As a result, some of the Public Law 86-121 projects are not being utilized completely by all persons served originally by the project. Additional personnel and funding are needed.

Currently there is a Community Health Representative safety officer in five Service Units. There should be at least one Community Health Representative safety officer in each Service Unit. The Officer of Environmental Health and Engineering has very little input into the Community Health Representative safety program. We would like the concept to include our office as technical consultants to the Community Health Representative safety personnel and a reporting system to record their efforts.

Exhibit E--10

OCCUPATIONAL HEALTH AND INJURY CONTROL BRANCH

PROGRAM GOALS AND ACTIVITIES

The program of the Occupational Health and Injury Control Branch consists of the two major elements listed below:

1. Direction of a safety management program at Navajo Area Indian Health Service facilities for the benefit of patients, employees, visitors, and other users of IHS buildings and grounds.

2. Development and direction of a program designed to identify potential long-term health effects on Navajo people related to industrial development on and in the vicinity of the Navajo Nation, and the provision of consultation to the Navajo Nation in regard to occupational safety and health matters.

The Branch has been designated the responsibility for implementing the occupational health and safety provisions for federal employees. This legislated program involves mandatory inspections, data development, and other aggressive actions designed to provide a safe and healthful environment for federal employees. In the Navajo Area Indian Health Service, this involves approximately 1,900 employees working across an area of 25,000 square miles in 101 work places constituting over 627,000 gross square feet of workspace.

Navajo Area IHS facilities served in FY 1975, 18,097 Navajo in-patients and 537,573 Navajo out-patients. Concern for the safety of these patients and the safety of the accompanying visitor traffic are also responsibilities of the Branch. In regard to hospital safety, the Branch is a member of the Navajo Area IHS Joint Commission on Accreditation of Hospital (JCAH) Pre-Audit Committee. In that capacity, hospital facilities are reviewed annually in regard to JCAH Standards.

At present, events both at the planning level and in actual plan implementation identify a new and highly vigorous area of activity with significant implications for those concerned with the health and safety of Navajo people. This activity is the economic development which is occurring, or planned to occur, on or in the vicinity of the Navajo Reservation.

In October, 1974, the Navajo Tribal Council and Chairman's office approved the proposed "The Navajo Nation Overall Economic Development Program." The outcome of such development is introducing major new safety and health considerations into Indian Health Service planning efforts. This is essential if IHS is to maintain control over the potential adverse health effects which would accompany major new occupational health exposures to Navajo workers, significant new uses or diversion to waste of ground and surface waters, and massive shifts of populations.

Exhibit E--11

In regard to Branch efforts relating to industrial development, the Branch has attempted to review environmental assessments and impact statements, attends community meetings regarding industrial proposals, has attempted to develop working relationships with involved federal and state agencies, and has assisted in identifying the impact of such project proposals on the health of Navajo people and on the preventive and curative health-care delivery system of the IHS. In regard to present industrial activities of the Tribe, the Occupational Health and Injury Control Branch has provided, upon request, and within available resources, occupational health and safety consultation to the Tribe.

UNMET NEEDS

In order to accomplish the legislated objectives of the Branch, the provision of additional resources to the Branch is essential. The Branch is presently staffed only at the Area Office. At the Area Office, the staff consists of two (2) professional safety personnel and one (1) secretary. No field personnel are available at the Service Units to provide full-time professional level assistance to local IHS health care management with regard to safety and occupational health matters nor to respond to local Tribal occupational health and safety concerns.

In order to provide effective direction to an in-house safety management effort, and to properly address the issue of short and long-term health effects from industrialization, staffing for the Branch should minimally consist of the following personnel:

	Professional	Non-Professional
Area Office		
	1 - Branch Chief	1 - Staff Assistant
	1 - Assistant Branch Chief	1 - Secretary
	1 - Staff Occupational Health and Safety Specialist	
	1 - Occupational/Environmental Health Specialist	
Service Units		
	8 - Occupational Health and Safety Specialists	8 - Clerk Typists

In order to enable the safety and occupational health program to function, the following instrumentation, supplies, and other resources are needed by the Occupational Health and Injury Control Branch in addition to those now available to the Branch:

Monitoring and sampling instruments	$18,000
Supplies, furniture	14,000
Other resources (e.g., books, audio-visuals adies)	14,000
TOTAL	$46,000

Exhibit E-12

CONSTRUCTION AND MAINTENANCE BRANCH

In 1955, the Public Health Service operated one health center and five major service hospitals with a total bed capacity of 344 beds.

Today the Navajo Area Indian Health Service operates 25 health centers and stations and six major service hospitals with a bed capacity of 606 beds.

This past year we spent approximately three-quarters of a million dollars of Indian Health Service monies in maintaining and improving these facilities. Additionally, approximately three million dollars of Department of Commerce money was spent, or is being spent, in further improvement and minor construction projects on our existing facilities within the Navajo Nation.

In response to the increasing complexity of biomedical equipment and the attendant maintenance problems, the Indian Health Service is implementing an advanced maintenance, repair and certification program within the area of biomedical engineering. Two positions have been made available to employ biomedical engineers to set this program in motion. It is estimated that an additional quarter of a million dollars will be spent in specialized testing and calibration equipment and spare parts inventory.

We are currently working on a new 65-bed hospital replacement project at Winslow, Arizona. This project is approximately 15 per cent through the design stage. Estimated cost is twelve and one-half million dollars with conventional heating and cooling systems. If solar energy is used for heating and air-conditioning, it will exceed 15 million dollars. Additionally, Indian Health Service has just completed the schematic design stage for a new solar-energy heated hospital addition to the Shiprock Hospital, which will give this facility a total bed capacity of 210 beds.

Increased efforts are being made to improve the quality of maintenance work at the service units. New construction will no longer be scheduled using the maintenance forces but will be contracted with private construction companies, thereby permitting the maintenance workers to be used on jobs dealing with direct maintenance. A new position has been authorized to employ a preventive maintenance engineer specialist who will direct the training and implementation of new preventive maintenance programs at the service units.

UNMET NEEDS

While we are proceeding with design stage for the Winslow Hospital, we still are not funded to actually build the facility.

A replacement hospital is needed for Crownpoint due to gross structural and safety deficiencies.

New hospitals are needed at Chinle and at Kayenta.

Staffing is woefully inadequate at all service units to provide a comprehensive preventive maintenance program.

EXHIBIT F

STATUS REPORT
or
INACTIVE URANIUM MILL SITES

MARCH, APRIL, AND MAY, 1976

SITES ON NAVAJO LANDS

Shiprock Progress Report - Decontamination activities at this site began indirectly with a letter dated November 9, 1973, from the Navajo Tribal Chairman to the EPA Administrator, which requested EPA and other federal agency participation concerning assistance relative to stabilizing the tailings piles at four inactive uranium mill sites of the Navajo Reservation. During April 1974, radiation surveys were conducted around the four sites to determine the extent of wind- and water-eroded mill tailings in order to provide a basis for deriving decontamination cost estimates. Radiological criteria were needed and developed concerning the decontamination of inactive uranium mill sites in order to interpret the results of the radiation surveys. The survey results, based on the radiological criteria, then became recommendations for decontaminating the sites and were forwarded to the Navajo Tribe in October 1974.

Both the Mexican Hat, Utah, and Shiprock, New Mexico, sites were being utilized at the time of the surveys. Construction industry crafts were being taught at the former, while the latter was a base of operations for the Navajo Engineering and Construction Authority (NECA), which is a Tribal enterprise. On the Shiprock site, NECA was also operating a heavy equipment training school, which utilized, in part, the tailings ponds for practice areas. To discourage the use of the tailings ponds for practice and to attempt to reduce the radiological exposure to site workers, representatives of the Tribe, NECA, and federal and state agencies decided the site should be decontaminated. The decontamination activities would be conducted by the NECA training program, which would be assisted by the involved organizations and agencies. These agencies were the Navajo Environmental Protection Commission (NEPC); NECA; the Public Health Service; Indian Health Service (IHS); the Environmental Protection Agency (Region VI office and the Office of Radiation Programs--Las Vegas Facility (ORP--LVF); and the New Mexico Environmental Improvement Agency (NMEIA). This decontamination effort was officially launched by the Tribal Vice Chairman on January 8, 1975.

An informal agreement was prepared by the ORP--LVF participating staff member, outlining the responsibilities of the participating agencies' support concerning the decontamination activities. The agreement was reviewed and approved by members of these agencies and put into effect immediately. A technician provided by the NEPC was assigned to the Shiprock site to conduct surveys, operate sampling equipment, maintain day-to-day coordination with the participants concerning radiation matters, and to assist NECA training concerning the enforcement of radiation protection. A draft, "Work Plan for the Decontamination of the Shiprock Uranium Mill Site," was prepared by the ORP--LVF staff member and forwarded to IHS for distribution among the participating agencies for comments. After the comments were received, the

plan was finalized and became the basis for conducting the decontamination activities. The major decontamination tasks are outlined in blocks 1 through 10. The dependent sub-tasks are connected by dashed lines to the major tasks at an approximate time when they should occur. They also identify the agency which is to participate in the sub-tasks. The time base for the tasks could not be set up in time intervals because of the uncertainty of the efficiency of the trainees and funding. Major tasks 1 through 5 constitute approximately 85 per cent of the earth-moving activities required to decontaminate the site. Areas depicted by the work plan tasks are identified on attachment 2. Major tasks (numbers 4 and 9) will not be completed until a decision from the Phase II surveys has been reached concerning the disposition of the tailings piles. This is because, if the piles are to be moved off site, the clean fill cover will also have to be moved, which will result in an unnecessary expense.

Task 1 (Adjust Unstabilized Pile Boundary) has been completed and involved moving the unstabilized pile away from the mill buildings for a distance of 300 feet. Approximately 120,000 yards of tailings were moved to rough-shape and adjust the pile boundary. Although not indicated on the work plan, a sprinkling system was installed on the unstabilized pile to control wind erosion. This involved cutting a roadway down to the river on the east side of the site to gain access to water. Approximately 5,000 yards of earth were removed for the roadway, and 7,500 yards of tailings were adjusted on the pile to provide elevated ramps for the sprinkler laterals.

Sub-task 1c (Obtain Permission to Decontaminate Site Environs) has not been completed; however, some progress has been made in this area. Some of the land, contaminated with windblown tailings, is not located on the mill site property. Permission must be obtained from the land user to strip the affected areas and will probably involve monetary remuneration because of a temporary loss of a grazing area.

Task 2 has been completed. This work was directed at removing a tailings pond adjacent to the mill yard buildings on the southwest corner of the site. Approximately 100,000 cubic yards of tailings and contaminated earth were removed from the area to a depth of 18 feet below grade in some sections. The excavation activities were complicated because of trash buried in this area, which caused some delays and damage to the excavation equipment. The trash included barrels, rebar, concrete, stationary engines, vehicles, and tanks. Clean fill for this area is being hauled in from a location southeast of the site over a new haul road constructed from clean fill. The fill is loaded into off-highway dump trucks with a conveyor belt and front loader and hauled approximately 1/2 mile to the tailings pond. Refill of the pond is now approximately 90 per cent complete.

The residual net gamma ray exposure rates in the excavated pond area, measured at 3 feet above the ground, were less than 10 uR/hr. This is probably the first tailings pond that has been excavated and decontaminated to a degree to allow unrestricted use of the area.

Status Report--3

All of the sub-tasks for Task 2 have been completed except 2f and 2h. These involve the disposition of the former mill buildings. Because of the poor physical condition of the buildings, the members of the participating agencies recommended that they be torn down and buried between the tailings piles or decontaminated and sold for scrap. The present status of sub-task 2f is that a bid for the removal and salvage of the buildings has been forwarded to the Navajo Tribe and is awaiting action. Late removal of the buildings will complicate the decontamination activities in the mill yard.

Task 3 (Decontaminate Ore Storage Area Yard) is approximately 60 per cent completed. The decontamination of this huge area is complicated because some fill was added over the contaminated ground by the prior site operator and training activities conducted before cognizance of the problem. Fill covering portions of the yard must be removed to gain access to the underlying contaminated earth and trash that was also buried by the prior site occupant.

A new shop building for NECA equipment maintenance has been erected in this area. The land underneath the shop and the adjacent area was decontaminated to background levels before construction began. This required an excavation to 3-4 feet below grade of a square area approximately 200 feet on each side. Clean fill was obtained from the borrow area and compacted for the building foundation. The transfer of maintenance activities from the old shop building to the new shop will relieve the problem of trying to accommodate the maintenance activities while decontaminating the mill yard.

Task 4 (Cover Stabilized Pile and Bank Area) has been significantly reduced in order to minimize the amount of material to be hauled away in the event that the tailings piles are relocated. Some clean fill, however, has been added to cover small areas where raw tailings are exposed. The dike on the river bluff has been completely rebuilt with contaminated fill from the ore-storage yard and is substantial enough to support heavy equipment. A steep wash, that could weaken the dike, was partially filled and reinforced to prevent a breakthrough of impounded water. Drainage surveys need to be conducted in order that the placement of the remainder of the dike will be adequate to handle a projected runoff.

Sub-tasks 4a and 4d have been completed, and 4b is partially complete and will continue after the drainage survey is completed. Sub-task 4c will be completed in the near future, while 4e will be deferred until the decontamination of the ore-storage yard has been completed.

No direct work has been done on Task 5 (Decontaminate Mill Site). However, some or parts of the sub-tasks have been completed. Tailings used for bedding the gas service line have been removed from along the side of the occupied buildings out to the gas main (5a). Tailings, also used for bedding the water line running from the artesian well head located in the fair grounds to the storage tank in the ore storage yard, have been excavated on site. Permission will be required from the land user to remove the tailings between the site boundary and the fair grounds, and will require approximately 800 feet of excavation. The tailings used for bedding the water line have a cross section of approximately 1 ft. by 2 ft.

Status Report--4

An alternate parking lot (5d) has been constructed near the NECA office in area C. This will limit vehicle traffic in the mill yard and minimize "Tracking" of contaminates into cleaned areas.

Task 6 (Decontaminate Area C) has been completed except for the decontamination of the mill site access road and parking lot in front of the office building. This task was completed ahead of the scheduled time because of the decision to locate the alternative parking lot (5d) in that area. No work has been completed on any of the Tasks 7, 8, 9, and 10, their sub-tasks, or the Task 6 sub-tasks. Tasks 7 and 8 can be completed quickly when they become due on the work plan. Tasks 9 and 10 will have to await the results and decisions concerning the site disposition derived from the Phase II study.

Radiation protection measures being taken by students and cadre are the wearing of respirators and coveralls with a mandatory shower before leaving the site. Coveralls are laundered on site and not worn off site. Airborne dust is being minimized by limiting access to certain areas, placing clean fill cover on some haul roads and by a judicious use of mobile watering systems.

Several radiation "yardsticks" are being employed to determine the effectiveness of the decontamination efforts. These are:

1. Four continuously operated off-site airborne particulate samplers are located around the site in order to measure wind-eroded tailings and relate their concentrations to site activities.

2. A meteorological station (temperature and wind speed and direction @ 1 meter and 10 meters) has been established as an aid to interpreting the airborne particulate sample data.

3. Indoor radon progeny samplers are located in the on-site occupied buildings to establish working levels and relate the working levels to decontamination activities.

4. Gamma surveys are conducted periodically around and in the occupied buildings to establish radiation exposure rates and relate changes in the rates to the decontamination activities.

5. Thermoluminescent dosimeter stations are located in the occupied buildings to measure the cumulative exposures and to relate these to decontamination activities.

6. Thermoluminescent dosimeters are worn by selected personnel to establish cumulative exposures and relate them to decontamination activities.

7. An on-site air particulate sampler has been established to measure radionuclide concentrations in air and to relate changes in these concentrations to decontamination activities.

8. Gamma radiation measurements were made on the intersections of a land survey grid (200 ft. centers), which was established over the site and adjacent contaminated areas. These measurements will be compared with others made at the same locations in order to assess the general overall effectiveness of the decontamination activities.

An updated estimate of the expected yardage that has been or will be moved to decontaminate the site through Task 8 is:

Cubic Yards	Purpose
140,000	Decontaminate the site environs to near background levels
100,000	Removal of former tailings pond
5,000	Sprinkling system roadway
100,000	Fill for former tailings pond
7,500	Piling tailings to elevate sprinkling system laterals
20,000	Diking around piles
45,000	Site leveling
120,000	Moving tailings back 300 feet from buildings and pile shaping
25,000	Dike repair and fill for wash

In general, it is estimated that the decontamination work is 70 per cent complete and that Tasks 1 through 8 should be completed in September 1976. The original objectives of the decontamination efforts were to clean up the local environs around the site to a degree that it could be used in an unrestricted manner; to provide interim stabilization of the tailings piles in order to prevent or minimize further wind and water erosion into the local environment until permanent stabilization could be defined and applied; to provide a technical information base which could be applied to the decontamination of other inactive mill sites; and to investigate parameters which contribute to on- and off-site exposures. If, after the completion of Task 8, a decision resulting from the Phase II study indicates that the tailings piles will remain in place, Tasks 9 and 10 can be completed with some modifications and separate funding. If a Phase II recommendation is acted upon whereby the tailings piles will be relocated, then a substantial portion of that work will have been completed without the addition of any significant unnecessary materials to the tailings volume.

Mexican Hat - The site occupant is still using the site for training purposes. Some earth-moving was reported to have been done on the east side of the site, adjacent to the tailings pile, and in the ore-storage yard. The executive director of the Navajo Environmental Protection Commission has taken action to discourage any further earth-moving activities on site. On- and off-site sampling is continuing at this location.

Tuba City - Track Etch monitoring is continuing in the mill housing area.

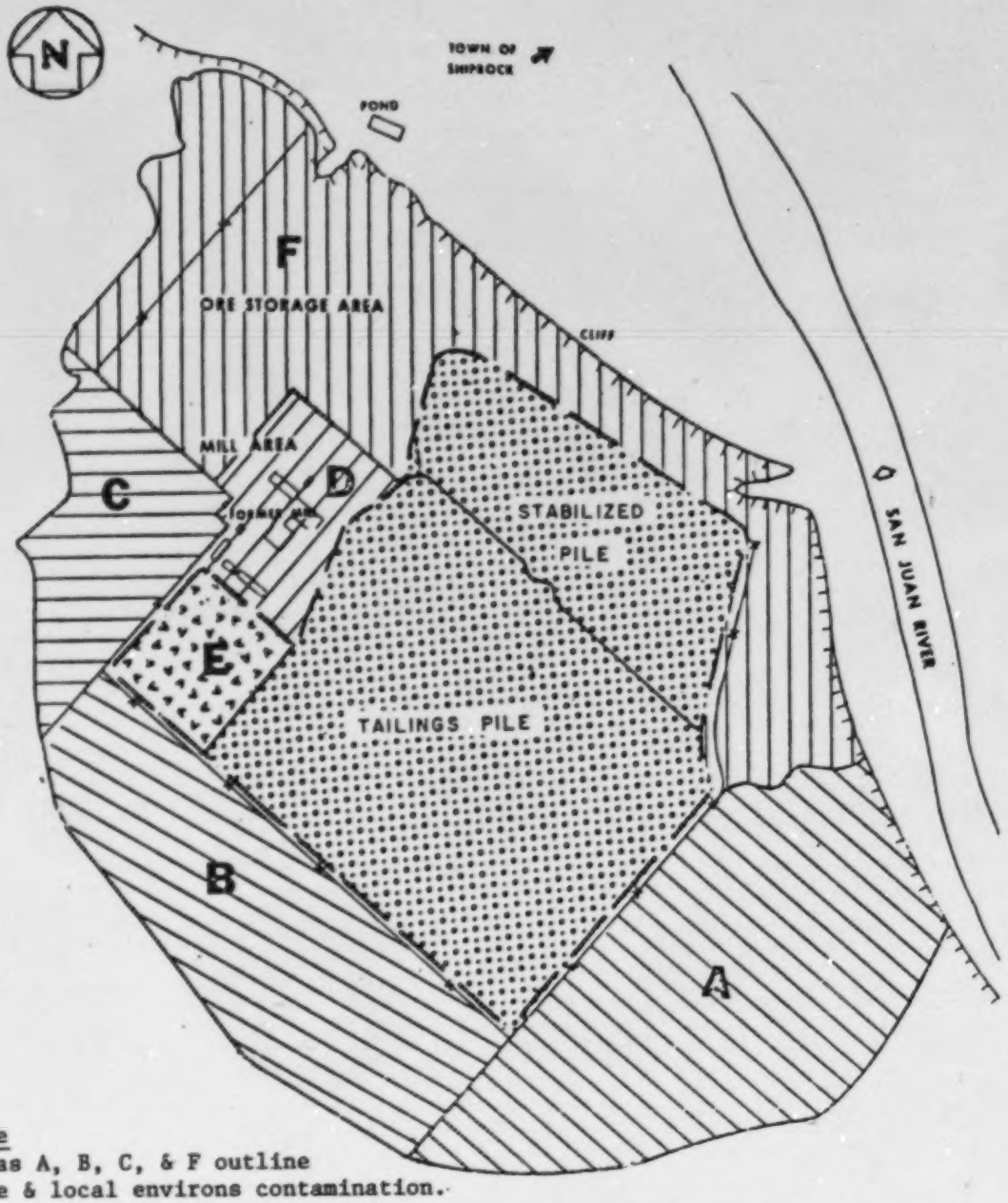
Monument Valley - Track Etch monitoring is continuing for dwellings in the local area.

Other

Utah - Particulate air sampling has been terminated near the Vitro site.

2 Attachments

SHIPROCK URANIUM MILL SITE



Note
Areas A, B, C, & F outline site & local environs contamination. The sequence for decontaminated areas A through F is based upon logistic and meteorological considerations and radioactivity levels.

Work Plan for the Decontamination

Of the Shiprock, New Mexico Uranium Mill Site

Explanation of the Flow Chart

General recommendations for the decontamination of the site include radiation safety aspects, location and depth of contaminants, and general decontamination procedures were included in the "Recommendations for Decontamination of Uranium Mill Sites on the Navajo Reservation."

These procedures were to move or remove the heavily contaminated areas first to minimize the possibility of recontaminating cleaned areas. After this has been accomplished, then proceed with the decontamination of the site and its environs, working in upwind areas (NE) first, proceeding counter-clockwise around the site.

In general, the contaminants can be divided into three categories. These are:

1. High Activity -- This includes pure or lightly diluted tailings found on the ponds and their adjacent areas.

2. Intermediate Activity -- This includes the area between the "red" or 10 μR/hr line and the pile.

3. Low Activity -- This includes the area between the "blue" or background line and the "red" line.

Materials from the "red" line areas, because of their higher activity, should be placed on the pile first and followed by "blue" line areas which will place low activity earth on the pile surface. This will help to shield gamma radiation from underlying high activity tailings, lower wind erosion of radioactive contaminants, and possibly reduce radon emanation.

Major decontamination tasks are indicated by the rectangles which proceed from left to right on the flow chart. Dependent sub-tasks with designated participating agency(s) are connected perpendicularly to the major task line at approximate times which they should be undertaken.

Listed is each major task and dependent sub-tasks with an explanation of each.

1. Adjust unstabilized pile boundary: This is pursuant to general recommendations of working with high activity areas first.

   a. Move tailings 300 feet away from buildings to pile. This is to further separate the buildings from the pile which will lower ambient exposure levels and possibly reduce indoor radon in the occupied buildings. This sub-task has been completed; however, further decontamination of the area will be necessary.

b. Determine desired pile shape. Identify an ideal shape considering its location, contamination fill load, drainage, and wind and water erosion.

c. Obtain permission to decontaminate site environs and investigate revegetation. Determine what type of revegetation of the stripped off land is practical and develop a procedure for its inclusion in the decontamination activities. Advance permission to decontaminate off-site areas belonging to land holders is necessary because of potential delays involving compensation and restoration.

d. Rough Shape Pile. Some shaping has occurred; however, it may not be adequate for a desired shape and will depend on subtasks e, f, and g.

e. Establish Unstabilized Pile Contours. Survey the pile and determine its cross section.

f. Estimate decontamination earth volume. These volume estimates have already been made; however, they should be updated.

g. Designate areas on pile to receive decontamination earth. If proper shaping can be accomplished, proceed with decontamination. If not, further rough shaping of the pile should be undertaken immediately before any further blanketing occurs.

h. Locate and designate trash and scrap area between stabilized and unstabilized piles. The exact location of the trash, debris, and possible building materials would be very helpful in the event the piles are relocated.

i. Estimate clean fill requirements. Some of the areas decontaminated will require clean fill in addition to extra fill on the stabilized pile, and a blanket for the unstabilized pile. These estimates are necessary before sub-task 2-a can be completed.

2. Decontaminate tailings pond Area E: This is pursuant to the general recommendations of working in high activity areas first. The tailings pond in this area is suspected to have been lightly used. Clean-up of this area will free approximately eight acres for unrestricted use and will potentially reduce gamma exposure levels and indoor radon in the occupied buildings.

a. Locate clean sources of fill for the site. Based on volume estimates (1i), sources of accessible clean fill need to be located and secured as soon as possible in order to begin filling Area E and other site locations.

b. Locate Area E Boundaries. The boundary on the SE side of this area should be located on the dike separating the NE pond from the remaining ponds.

c. Evaluate ponds on riverbed. A radiological and hydrological evaluation of the ponds are necessary in order to determine whether all, part, or none of the ponds should be hauled to the tailings pile.

d. Begin filling Area E. Refilling Area E with clean fill can be conducted over a relatively long period of time without utilizing all of the available earth-moving equipment.

e. Decision on disposition of riverbed ponds. If it is necessary to move all or part of the ponds, they should be moved before substantial work has been undertaken decontaminating the ore storage area.

f. Determine which site buildings and materials are to be removed and their disposal method. Some work has progressed in this area; however, an early decision concerning their disposal is necessary in order that removal of their foundations can be accomplished during decontamination of the ore storage yard.

g. Survey and delineate the boundary of the stabilized pile. Radiation surveys should be conducted around the north base of the stabilized pile to accurately determine how close to the pile decontamination effort should begin.

h. Begin removal of mill buildings and materials. This task should be accomplished before decontamination of the ore storage area has been completed.

i. Establish decontamination procedure for Area F. Before decontamination of the ore storage area begins, a sub-plan should be prepared outlining the decontamination procedure, haul lanes dust control, receiving areas on the pile, disposition of building foundations, etc.

3. Decontaminate ore storage area: This large area, north of the stabilized pile, is the beginning of a counter-clockwise decontamination sweep around the site.

   a. Inspect stabilized pile and determine locations requiring additional clean fill. Visually inspect the pile and designate areas requiring additional clean cover.

4. Cover stabilized pile and bank area: Add clean fill to designated areas and cover exposed areas between the pile and river bluff.

   a. Remove concrete foundations to designated disposal area. Break up and remove mill building foundations and store in designated area between the stabilized and unstabilized piles.

   b. Repair base dike around stabilized pile. Add clean fill to existing dike on bluff side of pile and construct dike around the north side of the pile.

c. Establish decontamination procedure for Area D. Develop a work plan for the decontamination of the mill site area.

d. Establish vehicle traffic patterns in the mill area. With reference to NECA vehicle maintenance activities and a work plan for the mill site area, establish traffic patterns to accommodate necessary vehicle maintenance and decontamination activities. Restrict all unnecessary vehicle traffic in this area.

e. Decontaminate outsides of buildings. Wash down roofs and sides of site buildings to remove accumulated contaminated dust.

5. Decontaminate mill site: Detailed planning and a systematic approach to this task is necessary in order to minimize interference of essential activities and decontamination work.

   a. Move earth away from buildings and remove tailings used for bedding service lines. Pull back earth away from buildings in order that it may be picked up by heavy equipment. Inspect all buried service lines on-site and remove, and replace all tailings used for bedding.

   b. Construct dike around pile base (mill site are). Complete this task after mill site decontamination and construct the dike adequate to contain expected run-off.

   c. Decontaminate building interiors. Clean up interiors of buildings by washing, steam cleaning, and vacuuming.

   d. Locate alternate parking area. Designate and prepare an alternate parking area for private vehicles in order that the parking lot and access road can be decontaminated.

   e. Remove fence on NW side of Area E.

   f. Locate red and blue lines for Area C. Survey and locate the red and blue lines around Area C to outline the areas to be decontaminated.

   g. Establish decontamination procedures. Develop a work plan for decontaminating Area C.

6. Decontaminate Area C: Decontamination of this area can proceed with recommendations provided in the general guidance.

   a. Decontaminate mill site road. The road should be decontaminated before any work in Area C begins to minimize the spread of contamination by vehicle traffic.

   b. Add required fill. Clean fill should be added to the road bed and parking area, where necessary. Additional fill may be needed for cosmetic purposes.

c. Remove fence between Area B and pile.

d. Establish decontamination procedures. Develop a work plan for Area B.

e. Locate red and blue lines. Locate and mark the lines around Area B.

7. Decontaminate Area B: Decontamination of this area can proceed with recommendations provided in the general guidance.

a. Add required fill. Use clean fill to restore near-original ground contours.

b. Dike area at pile base. Construct a dike in Area B from clean fill sufficient to contain expected runoff.

c. Establish decontamination procedure. Develop a sub-work plan for the decontamination of Area A.

d. Locate red and blue lines for Area A. Locate and mark the lines around Area A.

8. Decontaminate Area A: Decontamination of this area may proceed as indicated in the general recommendations.

a. Add required fill. Return the decontaminated area to near-original contours with clean fill.

b. Dike area at pile base. Construct a dike in Area A sufficient to contain expected runoff. Use clean fill.

c. Develop work plan for pile cover. Establish a procedure to provide a final blanket of clean fill on the pile.

9. Cover unstabilized pile:

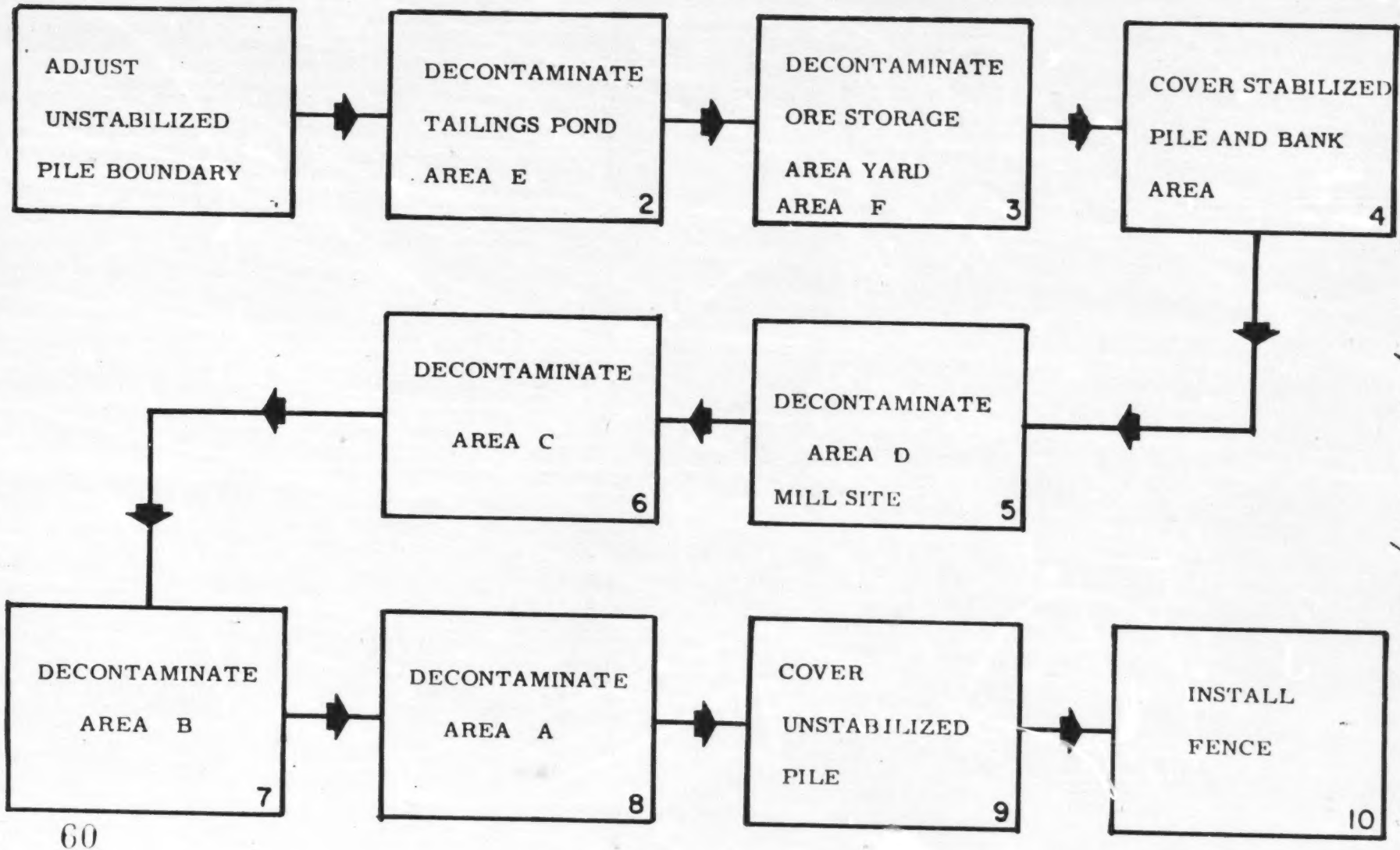
a. Complete final radiation survey and locate fence. Grid mill mill site and complete radiation survey. Determine fence location based on radiation measurements.

b. Estimate fence requirements and locate access areas. Estimate necessary fencing requirements for the piles allowing for access points for entry to perform maintenance.

10. Install fence.

85 v

WORK PLAN FOR DECONTAMINATION OF THE SHIPROCK URANIUM MILL SITE



60

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61